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ELL Students in Texas' High-Stakes Testing Landscape

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ELL Students in Texas' High-Stakes Testing Landscape

by

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Dissertation

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DEDICATION

Dedicated to principal members of the CCS clan…

Cole Christopher and Ciara Carmen

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ELL Students in Texas' High-Stakes Testing Landscape

Publication No._____

San Juanita Muñoz Sánchez, Ph.D.
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Supervisor: Angela Valenzuela

This is a study of quantitative data from a large school district. Analytical methods compared the performance of English Language Learner (ELL)/Limited English Proficient (LEP) students and their non-LEP counterparts to isolate major differences. The research was designed to measure the performance gap between ELL and non-ELL students on assessment examinations at a varying level of language competency and content. Multivariate regression analytics was used to determine the importance of multiple factors and their relationship to ELL students' performance on standardized exit level exams. TAKS examination results were examined for educational inequities affecting ELL students based on test scores as the primary gauge of performance and to provide a content basis for predictive modeling of the author's CCSSE conceptual model. A literature review using critical race theory was integrated to the non-quantitative portion of the study's design whereby TAKS regulations were analyzed to discern whether English Language Learners are disadvantaged or adversely affected. The research seeks to provide a model to consider via an analysis by which curriculum and instruction specialists, educators, and policymakers can determine the importance of certain factors affecting second language learners via the exit level TAKS examinations in an effort to develop alternative measurement policies to assess ELL students. The author offers instructional and policy recommendations based on her research.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

GLOSSARY OF TERMS

Culturally relevant teaching: A pedagogical term meaning education that is relevant to that child's culture.

Drop-out: The Texas Education Agency and NCES both define a dropout as a student who is enrolled in school at some time during the school year but either leaves school during the school year without an approved excuse, or completes the school year and does not return the following year.

ELA TAKS assessment: state mandated English Language Arts assessment, sometimes referred to the English language reading exam.

ELL: English Language Learner, preferred term to be used here instead of LEP term which is inculcated within a deficit theory perspective. *Note:* Not all ELLs are designated as LEP because they have never received ESL instruction or may have tested out of ESL programs.

ESEA: The Elementary and Secondary Education Act (ESEA) of 1965, which was amended to add Title VII, The Bilingual Education Act. This program established federal policy recognizing bilingual education as a viable method for economically disadvantaged language minority students; allocated funds for innovative programs; and recognized the unique educational disadvantages faced by non-English speaking students.

ESL: English as a Second Language student participating in a state approved full-ESL program meaning the student participates only in ESL.

L1: First language, or native language of English language learner

L2: Second language (English is the learned language for ELL/LEP students)

Latino: Term used interchangeably with broad U.S. Census derived term of Hispanic

LEP: Limited English Proficient student classified as such in secondary schools where bilingual education is not offered and typically means that students have been identified as being in a state approved English as a Second Language program. This term often used simultaneously or in lieu of ELL as all LEP students are English Language Learners.

Low-income: A term used throughout the course of this study to describe the parents of children who are poor. Children from such families qualify for the [U.S.] National School Lunch Program, which regulates eligibility for free meals at school.

NAEP: National Assessment of Educational Progress. The National Assessment of Educational Progress (NAEP), also known as "the Nation's Report Card," is a nationally representative assessment of American students' knowledge and skills in various subject areas. NAEP does not provide scores for individual students or schools. NAEP offers results regarding subject-matter achievement, instructional experiences, and school environment for populations of students (e.g., fourth-graders) and groups within those populations (e.g., female students, Hispanic students). NAEP results are based on a sample of student populations of interest.

RPTE: Reading Proficiency Test in English; Exam assess students in grades 3-12 in the domain of reading.

TAAS: Texas Assessment of Knowledge and Skills. The predecessor assessment to the TAKS exam in the state of Texas.

TAKS: Texas Assessment of Knowledge and Skills. The Texas Assessment of Knowledge and Skills (TAKS) exam is required for students to earn a high school diploma. The assessment is taken by all students who do not have a waiver as mandated by the state of Texas legislature.

TEA: Texas Education Agency. The state agency oversees development of the statewide curriculum, administers the statewide assessment program, and administers a data collection system on public school students, staff, and finances. The agency's operational costs are supported by both state and federal funds.

TEKS: Texas Essential Knowledge and Skills. The state of Texas established these standards that all students are expected to master in subject areas, essentially the forerunner to the current TAKS objectives.

Title I: A formula grant program that provides federal funds to state educational agencies and local school districts to support high-poverty schools.

Chapter 1: The Study

Introduction

In less than one decade (during the 1990s) more than 13.3 million immigrants arrived in the U.S., changing the face of schools and communities. By the end of the 1990's, over 3 million students were designated as LEP, signifying an increase of double what the LEP numbers were 10 years before (National Clearinghouse on Bilingual Education, 1999). Nearly one-fifth of America's school-age children now speak a language other than English at home. The numbers for school-age children reflect youth ages 5 to 17, who receive most of their formal education in English, but speak a second language with their families: about 9.8 million, or 18 percent of that group, compared with 14 percent in the 1990 census. Close to 7 in 10 of the children spoke Spanish at home, and two-thirds of that group rated themselves as speaking English very well – with current data for Texas children reporting that 27% speak Spanish at home and less than half of that number (12.3%) indicating that they speak English less than very well (U.S. Census, 2000b). Additionally, fluency declines as people get older, as 50 percent of those ages 18 to 64 who spoke Spanish at home described themselves as speaking "English very well." While statistics vary on the number of Latinos and Spanish-speakers in the U.S., it is clear that their numbers continue to grow greatly.

In this chapter, the researcher introduces the guiding concerns held while developing this study, a description of the current statutes codifying English language

learner or "LEP" education, social and linguistic challenges for English language students, demographics for English language learners, a statement of the problem at hand, the purpose of the study, overarching and underlying research questions, and concluding thoughts.

Guiding Concerns

Data for students in a school district in Texas called Coastal ISD (pseudonym) show that the TAKS Social Studies performance 'pass' rate is only at one third (35%) for ELL/LEP students, and only 66% for Latino students taking the tenth-grade exit exam during the 2003 testing cycle. Clearly, such a high rate of failure is unacceptable, and if this growth pattern continues, there will be too many young people leaving school without a high school diploma. If this trend continues, it will leave an increasing number of people with appropriate schooling in the state and a lack of education credentials for today's job market. This shortage will have a long lasting impact on our society at large, but particularly rapidly growing employers who will be looking at a larger than ever labor force comprised of language minority segment destined to bear the brunt of leading an adult life without a high school diploma.

Thus, the research that this researcher chose to investigate is grounded in the necessity for educators to go beyond the present mandated public school curriculum and relatively focused accountability measurement initiatives that seek to address the inner workings of ELL education in the high-stakes landscape of Texas. Due to the staggering population figures projected for the ELL and Latino sectors by the various statistical

demographic sources, it is imperative that education be focused on linguistic and cultural minority segments of our population to fashion better instructional practice and craft more equitable assessments that are appropriately sensitive to aspects of language, content knowledge, and curricular exposure for secondary students.

An explicit motive for this study is to investigate how content, repeated test exposure, and other background variables affect performance as mandated in the state exit exam requirements for a high school diploma with the intent to develop effective instructional guidance and curricular reform of school institutional behavior (McNeil 2000; 2004; Sloan, 2004) for those combating the negative effects of a definitively entrenched accountability system that effectively erases the academic dreams of many ELL students in Texas' high-stakes testing landscape with one arbitrary score.

Education and Socio-Linguistic Challenges

Schools across the nation are facing the challenge of educating students from various linguistic and cultural backgrounds. Demographic trends indicate that more than one-fifth of school-age children and youth--nearly 10 million students--are from language minority households, in which languages other than English are spoken. About two-thirds of these youngsters themselves speak a non-English language at home, and more than one-third have difficulty with spoken English. In 1990 the Census showed 31 states with at least 25,000 language minority students who speak a non-English language at home (U.S. Census Bureau, 2000a). Of these, Florida and Illinois each had more than

300,000; New York had 700,000; Texas had more than 970,000; and California had 1.9 million students. Such students represent more than 100 native languages, the most common being Spanish, French, Chinese, German, Vietnamese, Asian Indian, Korean, and Filipino.

Many students come to school with 'limited English' proficiency (LEP); their speaking, listening, reading, or writing skills in English are not sufficient to allow them to fully participate in traditional all-English core curriculum classes (Echevarria, Vogt, & Short, 2004). The LEP term is used to refer to a student with restricted understanding or use of written and spoken English; a learner who is still developing competence in using English (Echevarria, Vogt, & Short, 2004). Although federal and state policies have mandated special assistance for LEP students with yearly assessment via Title III funds, they are more likely than English proficient students to drop out or 'disappear' before completing high school (Valenzuela, Fuller, & Vasquez-Heilig, 2006). More than 40% of ELL/LEP students are immigrants. These students enter the U.S. school system with varying degrees of cultural and academic preparation, and at various ages.

Schools are struggling to accommodate not only kindergarten students who speak little English and who have lived in the U.S. since birth, but also newly arrived teenagers, some of whom are illiterate in their native language and still others who have had excellent schooling. Language minority, LEP, and immigrant youth are highly likely to be poor, to be members of ethnic or racial minority groups, and to attend segregated and

poor public schools. Their families and communities may suffer stress resulting from inadequate health, social, and cultural services, as well as low employment rates. The dimensions of the challenge vary from state to state, school to school, and year to year.

With respect to educational challenges, one should understand why researchers Sachs, Goldman, and Chaille (as cited in Pellegrini & Galda, 1985, p. 60) posit that it is easier for a child "to engage in discourse on a topic when that topic is well known." There has been much research published on theoretical strategies such as scaffolding (Vygotsky, 1987), "expansion" and "extension" (Hulit & Howard, 1997, p. 149) to aid children in their process of language acquisition. Although these strategies help children use words and sentence structures learned, they are not universal (Marcus, 1993; Valina, 1993). The basic tenet to reinforce the student's first language according to the concept of an "underlying proficiency" as "experience with either language can promote development of the proficiency underlying both languages, given adequate motivation and exposure to both either in school or in the wider environment" (Cummins, 1984, p. 143).

Critiques of educational institutions contend that they have eroded the view of minority students as emerging from socioeconomic environments rich in social and intellectual resources. Instead of focusing on the rich knowledge that such students bring to school and using it as a foundation for learning, the emphasis has been on what these students lack in terms of the forms of language and knowledge sanctioned by the schools (Gonzalez, et al., 1995). The funds of knowledge refer to those historically developed

and accumulated strategies (skills, abilities, ideas, practices) or bodies of knowledge that are abundant and diverse in a minority child's world. Educators who are sensitive to the developmental needs of learners from diverse backgrounds could capture these funds effectively to combat the latent effects of broad based generalized content that all students should know in this era of standardized assessment.

Generalized instructional materials, which imply that there is one generic cultural interpretation of what is appropriate to teach minority students is rather limiting and useless. This latter approach of generic instruction to multicultural education fails to recognize that there are wide cultural diversity differences that exist within each of the larger Census-proscribed minority groups, and that even within a cultural subgroup, that particular culture transforms over time (Escamilla, 1993). Ethnic affiliation allows students to learn and respect other cultural groups' heritage and history. Strategies that a culturally relevant teacher employs are those that personalize the content by using the places, locations, and names familiar to students in addition to using analogies to relate new concepts to experiences within the students' backgrounds as suggested for ESL students (Tinajero, 1984).

The Latino cultural group has many ethnic and racial variables that comprise its unique heritage. One predominant aspect is that of strong familial values which can sometimes interfere with educational achievement. Latino families are particularly close and highly value mutual support (Rothenberg, 1995; Suárez-Orozco & Suárez-Orozco,

1995; Valdez, 1996). This may lead to a higher rate of dropping out of school early to care for other younger family members or to seek gainful employment to contribute to the *familia*. Valdes (1996) illustrates how mainstream U.S. schooling practices pre-suppose culturally specific values and assumptions, emphasizing individual accomplishments and the '*Americanized*' freedom to choose one's own life path. She describes how rural, working–class Mexicans value reciprocity and loyalty to the family over individual glory, and explains why these more collective values lead some Mexicans and Mexican-Americans to forego academic success for the sake of maintaining their connections.

With respect to Latino children, there are a multitude of factors that contribute to the educational vulnerability of these students, which can be attributed directly to inappropriate instructional practices and curriculum. Scholars point out that the vulnerability of Latino children is further compounded because of the inadequate supply of professionals who share cultural identity with these students. In a study of high performing Hispanic schools, the lack of culturally sensitive assessment personnel leads to psychoeducational practices that reinforce deficit assumptions for minority students' performance (Reyes, Scribner & Scribner, 1999). The research indicates that teachers who were empowered to adapt and make culturally relevant curriculum to match the unique needs of Hispanic students contributed to the success of the students (Reyes, Scribner & Scribner, 1999, p. 2-3).

There can be little doubt that there exists a bias in most mainstream teachers toward minority students that evolves from a variety of factors. Valenzuela (1999) argues that [traditional] schools '*subtract*' resources from youth in two major ways; by dismissing their definition of education and more importantly, through assimilationist policies and practices that minimize their culture and language. She contends that teachers see the differences in culture and language between themselves and their students from a "culturally chauvinistic perspective that permits them to dismiss the possibility of a more culturally relevant approach in dealing with them" (Valenzuela, 1999, p. 66). Teachers in Valenzuela's study egotistically failed to acknowledge a need for and thus, did not develop an affirming attitude toward the children's culture because they simply deemed it unnecessary.

Children with culturally and linguistically rich backgrounds present unique resource allocation demands to our education system, where serious disparities have been found to show that most schools are not meeting this educational challenge between secondary and elementary grade level immigrant students and the resultant instructional program spending (Ruiz-de-Velasco & Fix, 2000). Due to a variety of reasons, U.S. schools are faced with a growing number of students from culturally and linguistically diverse backgrounds (Obiakor & Utley, 1997). It should be noted that the student population in the United States growing fastest in those segments with which American educations has traditionally been least successful, is that of the African American and Latino/Hispanic populations. The prior failure of professionals to acknowledge and value

diversity historically contributed to the poor scholastic performance of minority students (Benner, 1992), but nonetheless engendered the development of sociopolitical consciousness (Ladson-Billings, 1998) through research on practices allowing for a fundamental rethinking in teacher assessment and a multicultural curriculum. The need to maintain pluralism in the US curriculum becomes of vital import as educators struggle to combat against the TAKS' deleterious instructional effects as they fight to hold onto the last vestiges of the learned professional's realization that no academic content is neutral (Hilliard, 1992).

Education Landscape

Our current educational landscape has "more tests of achievement - the level of knowledge, skill, or accomplishment" in a subject area - being "administered than all other types of tests combined" (Aiken, 2003, p. 130) with a particular emphasis on written examinations of educational achievement. The educational landscape in Texas has a long and rich history of statewide student assessment. For over 20 years, as required by the Texas Education Code, Texas has assessed skills in reading, mathematics, and writing. During 1980-1984, the state utilized the Texas Assessment of Basic Skills (TABS) tests and then the Texas Educational Assessment of Minimum Skills (TEAMS) tests throughout 1985-1989. Several changes to the state statute required the TEA to develop another criterion-reference program, the Texas Assessment of Academic Skills (also known as TAAS) that was introduced in the fall of 1990 and administered through the spring of 2002. Furthermore, legislative changes also called for a high school course

specific assessment system, the Texas end-of-course exams, administered from the spring of 1994 to the spring of 2002.

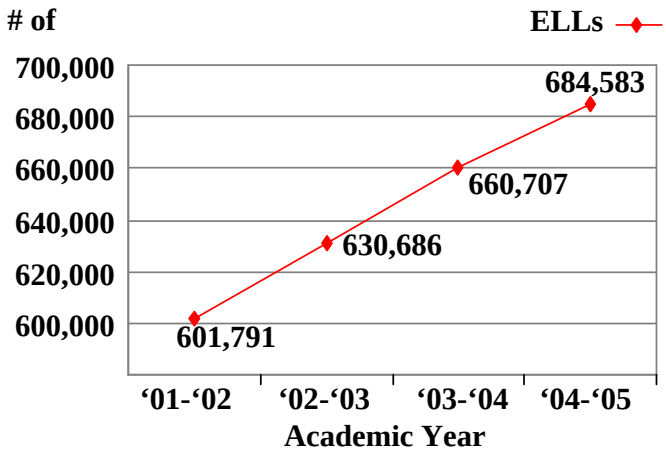
In 1999, more changes to the state law required the TEA to develop yet another criterion-referenced program, the Texas Assessment of Knowledge and Skills (TAKS) which began in the spring of 2003. The TAKS program includes assessments of reading at grades three through nine, English language arts at grade 10 and Exit level, and writing at grades four and seven. The TAKS assesses mathematics performance at grades three through 10 and Exit level; science at grades five, then and Exit level; and social studies at grades eight, 10, and exit level.

The Spanish version TAKS can be administered to students in reading and mathematics at grades three through six, in writing at grade four, and in science at grade five. The 2001 reauthorization of the Elementary and Secondary Education Act (ESEA) replaced the Title VII competitive grant program with Title III, a formula grant program providing funding to states. New provisions contained within the amendments to Title VII of NCLB (2002) focus on promoting English acquisition and helping English language learners to meet challenging content standards by creating aligned systems of standards and assessments. States issue sub-grants to local education agencies or school districts, and are held accountable for LEP/ELL and immigrant students' academic progress and English attainment. Thus, under the No Child Left Behind Act of 2001, all states must show annual increases in the progress ELL/LEP students achieve in learning English and attaining English language proficiency.

Texas ELL/LEP Students

The state of Texas' education body, the TEA, reports that the growth of ELL students in Texas has steadily increased at a rate of 5 percent per year. According to the TEA (2005), the growth rate for English language learners illustrates an increase from the 2001 figures. Currently, for the 2005-2006 year, there are a total of 711,396 LEP or English language learners in the state of Texas (TEA, 2007c).

Figure 1.0: ELL Student Population Trends



Further, the growth trends for ELL students show no evidence of lessening in the state of Texas. In the year 2001-2002, the population of ELL students numbered 601,791. The following years, 2002-2003 show ELL students as 630,686 rounded out by a figure of 660,707 in 2003-2004. The previously reported figures for the year 2004-2005, show ELL students growing to 684,583 (TEA, 2005) with over 30,000 first year

immigrants assessed in grades two through twelve by the Texas English Language Proficiency Assessment System (TELPAS) in the spring of 2005.

Nonetheless, the important issue of how to educate and measure their performance is a contentious issue poised for educational debate across state lines in this country. Public policy related to assessments of student learning and how to deal with linguistically diverse students varies from state to state. For example, California students have a deferral of up to 24 months and until they have received six months of instruction in reading, writing, and comprehension in English. According to Texas public policy, legislation for Limited English Proficiency students in 19 TAC [§89.1225(f)(1)] requires a Home Language Survey and English oral testing, and if the home language survey indicates a language other than English, then testing is initiated to determine English proficiency.

Texas ELL/LEP Education Legislation

LEP is the official term found in federal legislation and is the term used to define students whose first language is not English and whose proficiency in English is currently at a level where they are not able to participate fully in an English-only instructional environment (Olson & Goldstein, 1997). It is important to note explicitly that the author of this research study prefers the term ELL for cultural sensitivity purposes. However, a synchronous review of the literature and scholarship require the use of both terms of English language learner (ELL) and limited English proficient (LEP) in this study. It is

necessary to note that Texas follows the federal legislation regarding terminology of "LEP" for the ELL student population.

Texas education policy in 19 Tex. Administrative Code 101.1001 (2007) (Texas Education Agency, English Language Proficiency Assessments), mandates that "in kindergarten through Grade 12, limited English proficient students, as defined by the Texas Education Code, Chapter 29, Subchapter B, shall be administered state-identified English language proficiency assessments annually in listening, speaking, reading, and writing to fulfill state requirements under the Texas Education Code, Chapter 39, Subchapter B, and federal requirements under the No Child Left Behind Act of 2001."

The English proficiency assessments administered to English language learners in the state of Texas are typically the Reading Proficiency Test in English (RPTE) and the Texas Observation Protocol (TOP) which assesses students in K-12 in four English language proficiency domains: i) listening; ii) speaking; iii) writing; and finally iv) reading. The latter domain, reading, is only assessed in grades kindergarten through the second grade. The RPTE examination assesses students in grades three to twelve in the domain of reading only. As with the elementary level grades, once secondary school students exist from an ESL program (as they would if under the bilingual education programs offered in primary grades of K-5), the student must demonstrate proficiency in the domains of reading, writing, speaking and listening.

The RPTE and the TELPAS is used to determine if the ELL student is required to take the TAKS exam in English. Students can be classified as LEP according to the RPTE and TOP exams, which are administered to students up to the twelfth-grade. The only students who can get LEP exemptions from the TAKS test are those students who are first, second or third-year immigrants. However, having an LEP exemption does not mean that they will not have to take an assessment.

The Federal NCLB law [No Child Left Behind Act of 2001, 107-110 (2002), 115 Stat. 1425, principally codified at 20 U.S.C. §§ 6301et seq], requires that all LEP students be assessed annually in English language proficiency in reading (as well as listening, speaking, and writing) until they are no longer classified as limited English proficient. Therefore, Texas LEP students who reach the advanced high level on RPTE but do not meet exit criteria must take RPTE the following year. In general, LEP students take both the RPTE and Texas Observation Protocol (TOP) regardless of their performance as long as they are designated as LEP and have not been exited from a bilingual/ESL program. An ELL/LEP student will continue to take the RPTE even after s/he achieves the "advanced high" level because the federal government requires the use of the RPTE score, not the TAKS score, to report the highest level of English language proficiency (NCLB, 2002).

It is important to note that a LEP student may achieve beginning, intermediate, or advanced on the RPTE assessment of a student's English reading proficiency. All LEP

and immigrant students in Texas public schools are assessed in grades 3-12 until they reach the "advanced" level of performance on the RPTE, at which point they will no longer be subject to having to take this test.

Also, an RPTE score is not in and of itself used to require TAKS in English the following year. It is up to the teacher's discretion to determine if the ELL student is ready to take the TAKS reading (ELA) assessment in English. Time in U.S. schools is another criterion. Under Texas' accountability system, an immigrant who has been in U.S. schools for longer than three years is not eligible for a LEP exemption from the TAKS exam under any circumstances, regardless of that student's RPTE score. This researcher would like to note that some immigrants who have been in U.S. schools longer than three years may have RPTE scores of 'intermediate' and even 'beginning' levels of proficiency.

Prior to 1997, students classified as LEP were often exempted from testing for up to three years, under the TAAS test, the TAKS' predecessor accountability assessment. During the 1999 legislative session, an amendment to Senate Bill 103 that limited LEP exemptions to one year effectively constricted such an option to apply only to 'recent unschooled' immigrants. Subsequently, Senate Bill 676, which allowed for an exemption of up-to-three years for recent unschooled immigrants passed in April 2001.

Under current Texas legislation, however, there is no possibility for a LEP exemption after the third school year of enrollment in U.S. schools regardless of a student's progress. As codified in 19 TAC part 12, chapter 101, subchapter AA, Rule §101.1005 Limited English Proficient Students at the Exit Level, Texas legislation states that limited English proficient students are **not** eligible for an exemption from the exit level assessment of academic skills on the basis of limited English proficiency. However, LEP students who are recent immigrants may postpone one time the initial administration of the exit level test.

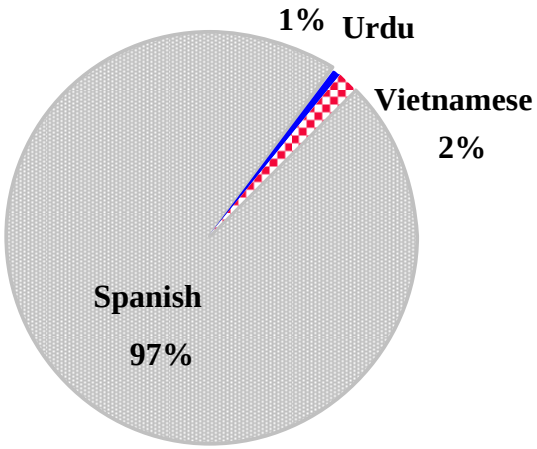
The term "recent immigrant" in the state's education code is defined as an immigrant who first enrolls in a U.S. school no more than 12 months before the administration of the test from which the postponement is sought. Under Texas education policy, schools are expected to teach immigrants enough English by their fourth school year in the U.S. to surpass the beginning and intermediate levels of English language proficiency.

Demographics for ELL students

According to the TEA, year 2005 statistics illustrate that the ELL population in Texas is predominantly comprised of Spanish speakers at 97 percent. The following figure below (*see Figure 1.1*) illustrates the percentage breakdown of the languages spoken by ELL students. Although there is increased representation of English language learner students and students participating in English as a Second Language instructional

programs as well as bilingual education (TEA, 2005), the academic performance of ELL students continues to lag behind the performance of their non-ELL counterparts**.**

Figure 1.1: ELL Language Breakdown



For instance, the cumulative passing rate for ELL students on the latest exit-level TAKS was only 48% compared to 87% for all students and 80% for Latino students (Texas Education Agency, 2007). Further, only 66% of ELL students across the state of Texas met one or more of the English language learner progress criteria. This indicator measures the proportion of ELL students who meet one or more of the following criteria: (1) achieving a 'passing' score on the English language reading/English Language Arts TAKS; (2) achieving proficiency on the Reading Proficiency Test in English (RPTE) corresponding to the number of years in U.S. schools; and (3) demonstrating progress on the RPTE exam (TEA, 2006a). Moreover, to date the Spanish TAKS is offered only to ELL students in the third through sixth grades as opposed to being offered as an option to secondary students, who are in effect having to directly bear the brunt of a high-stakes environment squarely on their backs. If the secondary school ELL student does not pass

the English-based TAKS exit exam, then s/he is denied a high school diploma regardless of demonstrable success with state mandated coursework.

Statement of the Problem

Due to a significant amount of English language learners being inappropriately tested within Texas' secondary schools and the number of Spanish-speakers appearing in this particular TAKS testing category, there exists the need to study factors that may contribute to the lack of ELL students with a high school diploma. Thus, a quantitative analysis was performed on one of the most heavily Latino populated school districts in the state of Texas. This study focuses on an analysis of available state level descriptive data of a large, urban public school district coupled with district level quantitative data provided by the same school district to examine whether standardized test results may be influenced by the lack of language proficiency of LEP students or English language learners (ELLs) in Texas, with a particular sociodemographic emphasis on Latino/Hispanic students. The term LEP and ELL will be used interchangeably throughout the study to refer to the same population of learners as these students are often referred to by either name across school districts.

Purpose of the Study

This research is designed to measure the performance gap between ELL and non-ELL students on the Texas Assessment of Knowledge & Skills (TAKS) examinations.

Analysis of factors, such as gender, ethnicity, economic disadvantage, and designation of limited English proficiency status were examined to test whether they have any significant effects on test scores. The hypothesis to be tested is whether the Latino students and the LEP students exhibited a difference in performance results of non-LEP students' results over LEP students' in a high-stakes testing environment, with a particular emphasis on the effects of content and prior test exposure.

Further, this body of work presents a conceptual model along with an in-depth analysis of the performance rates on the TAKS Social Studies exam, which was selected because it tests a combination of general knowledge that encompasses reading, geographic mapping, and economics questions – a deeply intertwined skill set that relies heavily on a mastery of the English. The TAKS exit-exam is intended to assess a student's knowledge of World Geography, World History, U.S. History, Government, and Economics. The Social Studies assessment has graphs and political cartoons, bar charts, numerical dates of significance, and physical element features that might allow one to erroneously assume that test is fairly easy to show mastery of the content. However, it is this researcher's contention that because the Social Studies exam is so complicated in terms of a heavy reliance on the English language, it is inappropriate for English language learners since the L(1)-L(2) language misalignment makes it difficult for the non-native English speaker and cannot accurately be reflected in his performance rating (TAKS score). The term L1 means first language and is a widely used abbreviation for the primary, home, or native language of the speaker. The L2 term

connotes the speaker's second language. The term "alignment" typically describes the match among the ESL and content standards, instruction, curriculum, and assessment (Echevarria, Vogt, & Short, 2004).

Research Questions

The primary research questions that I seek to answer are –

- What factors appear to impact TAKS performance?
- How does academic performance measured in terms of years in school and prior exposure mediate the relation between social class background and Social Studies TAKS performance, respectively?

Thus, this particular researcher utilized quantitative analytical methods to compare the performance of English language learners and their non-ELL counterparts to isolate any major differences. Using large scale assessment data, this researcher decided to ascertain how content, prior testing exposure, and duration of time spent gaining academic knowledge in school uniquely influences an ELL student's performance on the high-stakes assessment landscape in the state of Texas. The supporting sub-questions of this investigative research are:

1) Do ELL students perform better than non-ELL students on exit level TAKS assessments?

2) How does duration of schooling environment influence performance on exit level TAKS assessments?

3) Does course completion and content (World History, World Geography, Government, Economics, U.S. History) preparation affect performance on the Social Studies TAKS examination?

Summary

The background information of one of the state's largest school districts illuminates a need to analyze in greater depth why the ELL students scored lower than non-ELL counterparts and subsequently not be able to pass the eleventh-grade exit exams during the 2005 TAKS administration cycle. This empirical study also exhibits the potential to further expose the need for experimental design research and the factors causing low English language learner success rates in the educational landscape of Texas.

Chapter 2 reviews the literature, examines the research, and probes the possible causes of academic constraints leading to poor performance of minority students such as *racialization*, deficit thinking, social learning theory, and the socio-politically conscious adaptation of social learning theories into culturally relevant instruction. Chapter 2 also considers theories of critical race scholars and linguistics, and concludes with an overview of current quantitatively based large scale assessment research of English language learners. Chapter 3 explains the primary focus of my research. It describes the regression methodology that was employed and the rationale for quantitative research

based on a performance measure. Chapter 3 offers a description of the variables specified as important student characteristics for the development of the content-based CCSSE model and a preliminary analysis of English language learner performance activity. Chapter 4 presents the regression results of the study and an analytical interpretation of the predictors of performance. Chapter 5 concludes the dissertation with discussion on the implications of the research, and offers both instructional and policy recommendations for both curriculum and instruction specialists, educators, and policymakers.

Chapter 2: Literature Review

> **"Educational innovation is predicted on change-not only in the form of educational method used, but also in the *content* and *goal*s of education."–** *Elliot W. Eisner* (1990)

Introduction

There exist several dilemmas shaping the field of curriculum practice and theory in the coming decade are the role of assessment within the standardized testing movement, use of science based research (SBR) teaching strategies (NRC 2002), and the space occupied by multicultural curricular practices in education reform. Reform of the educational curricula offers the most challenge to the field of curriculum practice and most potential for improving the general state of education, if the call to action was to be answered. Education reform is the top public policy concern today, so it is not surprising that education reform experts all across the country are beginning to offer practical advice to policymakers. At the crux of the matter is that students who are culturally and linguistically different present a special challenge to educators.

Due to a variety of reasons, U.S. schools are faced with a growing number of students from culturally and linguistically diverse backgrounds (Obiakor & Utley, 1997). The inability of the educational system to teach subpopulations (Valenzuela, 2001) is of great concern because it is exactly within these fastest growing segments of the student population with which American educators have traditionally been least successful, that of the African American and Latino populations. The assumption that one of the major

causes of academic failure in children is the failure of teachers to teach (Ladson-Billings & Gomez, 2001) them becomes uniquely important to the educational reform movement because the call to action could theoretically be answered by introducing innovative curricular practices, and thereby curtail the growing school choice discussion.

In particular, the front-line educator's role is of vital importance and can single-handedly affect the outcome of a child's learning experience and his/her transformation into a more learned citizen in our society. While simultaneously attempting to achieve instructional goals, the teacher's "craft is marked by the absence of concrete models for emulation, unclear lines of influence, multiple and controversial criteria, ambiguity about assessment timing, and instability in the product" (Lortie, 1975, p. 136). Undoubtedly if an educator lacks the appropriate and most current information or professional training, then s/he cannot perform her occupational duties to the best of his/her abilities. Further, if an educator has no prior or personal knowledge of the effects of racialization, then it becomes supremely important that s/he is willing to accept the role as student as well – whereby the teacher commits to learn all that s/he can to become sensitive to the multicultural needs of the student and to remove any preconceived notions that s/he might have about the student's culture, race, or ethnic background in order to liberate the child's mind and simultaneously grow as an educator.

One might ask – "Is it acceptable for practitioners to develop curriculum on demand to fit a particular child's needs, and if so, how?" It seems almost presumptuous

to expect a teacher to know everything about every child's culture and instinctively unfair to expect that s/he knows how to adapt curricula and materials to accommodate every child in the classroom. Some people argue that no accommodations are to be made to create a multicultural atmosphere and that the classroom teacher should be color-blind in an effort to treat all children equally and uniformly. Further, if based in the rapidly changing multicultural American public school system, an educator who is not a member of an ethnic/racial minority group may not possess the first-hand knowledge of having to overcome the innumerable obstacles a non-White child faces in an educational setting that is more than likely already racially-laden.

However, those concerned with challenging the hegemony of the White, Euro-centric viewpoint and preeminence within educational systems would argue that it is not sufficient to simply go through the rote process of teaching a standard curriculum in a non-multicultural environment in an attempt to teach the entire class. Many arguments exist as to whether this country's public education system is in fact equipped to teach every child equitably and how this can even be accomplished. A theoretical perspective based on a definitive term in critical race theory, that of racialization, how it is manifested in education, and how this can be combated should be of vital importance to educators facing this nation's burgeoning minority school-based population on a daily basis. It is supremely important that subtractive schooling (Valenzuela, 1999) not be engendered as a side effect of the TAKS-based "curriculum cannon" devoid of pluralistic and linguistic sensitivity, harkening cultural indoctrination via a "coerced conformity" to so called universal academic content (Hilliard, 1992, p 13).

Process of Racialization

Robert Blauner (1994) helps to explain the process of *racialization* via an immigrant analogy. He alludes to the shared experiences of people of color in the U.S. with three conditions that differentiate the European immigrants from the Third World immigrants' perspective. First, it develops with involuntary or forced entry of people/ethnic groups into the larger society or metropolitan domain through processes such as war, conquest, capture. Second, racialization is furthered by a subjection to various forms of unfree labor that greatly restricts the physical/social mobility of the group and its participation in the political arena. Finally, it is a "cultural policy of the colonizer that constrains, transforms, or destroys original values, orientations, and ways of life" (Blauner, 1994, p. 150) which may be expressed in both the packaged course content and assessment policies of the current TAKS accountability system.

Blauner (1994) posits that one key function of racism, which is termed as the assumption of the superiority of Whites and their cultures and the coupled denial of the humanity of people of color – is that it legitimates cultural oppression in the colonial situation. With respect to conceptualization of race, he states that the total cultural domination, the alienation of most Third World people from a land base, and the numerical minority factor have weakened the group integrity of the colonized and their possibilities for cultural and political self-determination. The idea that the oppressed minority groups have indeed suffered in terms of cultural self-determination can be seen

in the way such groups have had to adapt to this stratification and these negative constraints socially, politically, and finally academically.

Parties involved in Racialization

Although there is significant research (Artiles & Zamora, 1997) on the factors that contribute to the disproportional representation of students from culturally and linguistically diverse backgrounds in special education, one crucial component is the failure of teachers to use culturally responsive instructional practices that address their educational, social, and cultural needs (Smith, Finn, & Dowdy, 1993). There can be little doubt that there exists a bias in most mainstream teachers toward minority students in traditional public schools that evolves from a variety of factors, including racialization.

First and foremost, there are many parties, with a particular emphasis on the dominant culture (i.e., Whites) at varying levels in the racial stratification system. It is 'White' people in the educational system providing inferior schooling; it is White employers, who impose a job ceiling; and finally, it is White people who fail to reward the educational accomplishments of minorities. According to scholars Fordham and Ogbu (1986), the students themselves are actively involved because they consistently use a cultural separatist coping strategy to deal with racialization. Due to inordinate ambivalence and affective dissonance, African American (as well as Mexican-American, American Indian) students have developed a kind of adaptation to their limited social and

economic opportunities in life as this country's subordinate minorities. Furthermore, teachers, who can be seen as "functionaries" of the dominant society, may be involved as participants in the racialization process.

Fordham and Ogbu (1986) contend that both the schools and the African American/Black community play significant roles in this process too. They suggest that school administrators should attempt to understand the influence of the "fictive kinship" system in the student's perceptions of learning and the standard academic attitudes, and behaviors expected of them. Fictive kinship may be defined as a cultural symbol of collective identity of African American/Black Americans. Further, the schools should develop programs and include counseling to assist the students in learning how to delineate academic pursuit from the idea of acting counter to their race or accepted culture -- i.e., "acting white" (Fordham & Ogbu, 1986, p. 203). The schools should actively reinforce Black identity in a positive manner compatible with academic pursuits and the Black community can provide visible evidence that it appreciates and encourages academic success via role models. That is, to frequently give public recognition to those individuals who are academically successful akin to the types of accolades and ceremonies typically reserved for sports figures.

Giroux's (1988) concept of teachers as intellectuals versus practitioners positions teachers as transformative, agency-driven educators that teach through a critical lens. This viewpoint is antithetical to packaged curriculum and pedagogy directed at meeting

the mandates of the ever stringent conservative TAKS based accountability movement en vogue across the state and nation. Giroux suggests that essentially this has framed teachers as "high level clerks" in today's educational landscape (1988). Giroux claims that useful knowledge should not be static, dominant centered calculation. Instead, his framework for knowledge is built in the Freireian (1993) way - - as a collection of ideas in flux, aimed at engaging critical inquiry and developing critical consciousness for the sake of unveiling the moral, economic, and political contradictions of life. Within this construct, instructors can embark on praxis for the greater social good.

Fundamental to a TAKS-based "form of rationality in the curriculum field is the notion of objectivity and neutrality. Guided by the search for reliability, consistency, and quantitative predictions, positivist educational practice excludes the role of values", and "subjectively defined meanings in its paradigm" (Giroux, 1997, p. 19). The high-stakes exit-exam accountability system as posited by Giroux is "rampant in public school pedagogy and has resulted in a form of curricular design and implementation that substitutes technological control for democratic processes and goals" (Giroux, 1997, p. 20). Thus, Giroux believes that the way educators deem knowledge, educate their students to understand knowledge, and design classroom experiences reflects a disconnected, universalized knowledge which may be guided by a purely positivist ideological undercurrent. (Giroux, 1997) that is in and of itself, subtractive to the learning process.

This is of unique importance because research has demonstrated that the curricular is often unfriendly to diverse populations and that the curriculum in fact, reproduces class, culture, race and gender inequities (see Appel, 1982; Bowles & Gintis, 1976; Delpit, 1988; McLaren, 1989; Oakes, 1986; Pinar et al., 1995). Particularly salient is the notion of the hidden curriculum (McLaren, 1989) which applies to all students and stratifies them into various class structures and may manifest itself throughout specific curricula and/or tracks of coursework and sequence for secondary school students (Oakes, 1986). Thus, the system of education may not wholly be based on a student's ability, regardless of any other influences that inevitably make up that student's schooling environment.

In Texas specifically, Latino students face structural demands from the curricula, policy and even instructional personnel (Valenzuela, 1999). Valenzuela's framework (1999) consists of social capital, caring, and subtractive assimilation for an in-depth understanding of the high school environment she studied. Valenzuela (1999) contends that [traditional] schools subtract resources from youth in two major ways; by dismissing their definition of education and more importantly, through *assimilationist* policies and practices that minimize their culture and language. She states that "structuring out of culturally relevant schooling" via standardized assessment curricula deprives children by stemming teaching practices that could elucidate shared cultural heritages between teacher and student (Valenzuela, 2004, p. 23). Valenzuela's scholarship contends that there exist "proven means" that preclude "reductionist models of teaching and learning"

like school size, class size, and instructor quality "which have been shown to correlate with higher academic achievement" among students of color (Valencia et al, 2001, p. 319).

Valenzuela notes that teachers see the differences in culture and language between themselves and their students from a "culturally chauvinistic perspective that permits them to dismiss the possibility of a more culturally relevant approach in dealing with them" (Valenzuela, 1999, p. 66). Teachers in Valenzuela's ethnographic study (1999) egotistically failed to acknowledge a need for and thus, did not develop an affirming attitude toward the children's culture because they simply deemed it unnecessary. In the caring literature, Valenzuela (1999) presents definitions of caring and authentic education, and contends that schools reduce or 'subtract' resources from youth in multiple fashions. She illuminates the differences between aesthetic and authentic caring methodologies between teachers and their students, and how this may directly influence the outcome of the students' academic potential. Authentic caring, unlike the aesthetic form, involves teaching with a notion of capitalizing on the child's cultural or linguistic knowledge base. As posited by Valenzuela (1999) in authentic caring, it is the teacher who has greater control over what type of success the child enjoys because s/he can initiate relationships with positive impacts when the teacher embraces a more culturally relevant approach.

Valenzuela exposes a subtractive environment that fails to be supportive of formulating the [immigrant] child's identity perception by not confirming the language, history, and experiences of the cultural "other," (Valenzuela, 1999, p. 93; Delpit, 1998). Valenzuela's findings (1999) reveal that immigrant and U.S.-born Latino youth resonate much more with the authentic form of caring with respect to schooling, as it is one, which emphasizes relationships of reciprocity. She argues that in order to overcome this *subtractive* racialization or *subtractive* environment where the students resort to resistance toward schooling, a concerted effort of bringing students' "issues of race, difference, and power into central focus" and discarding a "color-blind curriculum and a neutral assimilation process" (Valenzuela, p. 109) must be enacted by educators. She highlights the importance of social capital to youth academic levels of scholastic achievement. Since authentically caring pedagogy takes into account the strengths that children bring with them to school, Valenzuela (1999) considers the social ties that students have with each other as well as the academic skills and knowledge of 'funds of knowledge' (Gonzalez et al, 1995; Vélez-Ibáñez & Greenberg, 1992) that are embedded within students.

When a lack of access to a nurturing environment or support systems among students exists such as that reflected within today's accountability movement, it is even more crucial to have caring teachers and as such Valenzuela offers a solution to complex issues facing us in school reform by calling for teachers to be granted liberal and unilateral authority to access social capital in their curriculum.

Conceptual Theory

Apart from critical race theory and the subtractive schooling framework, there are several intertwined conceptual theories that underpin the rationale and sociocultural perspective that framed the curricular reform and instructional assumptions for this study conceptualized and diagramed at the conclusion of the research (*see Appendix*). For example, social learning theory commonly guides the design of curriculum for instruction, and as such this section discusses the feasibility and applications of certain social learning theory interventions in school curriculum as an effective counterweight to the TAKS assessment environment. There exist numerous similarities and differences in theorists' perspectives of the ways students learn, how the learning process includes the social environment, and ways in which human beings perceive the world and learn from it. This includes characteristics of developmental stages, the construction of the self, the influence of social interaction and experiences on cognitive development, and the development of internal thought and consciousness.

A majority of the beliefs concerning child development and social learning theory have grown from the theories of Bandura (1977), Bruner (1983), Ladson-Billings (1997), Piaget (1973), Vygotsky (1967; 1987) and many others who have significantly enhanced the theories of psychology and education and its relationship to children's development. Vygotsky (1967) focuses on the idea that the children's actions are different in relation to what they observe. He contends that children create structure, the meaning of the word

and the object, which dominates and ultimately determines their behavior. Bruner's (1990) "folk psychology" states how important culture is in developing human psychology and thus, in keeping this notion at the forefront of an educator's mind during instruction. Bruner's folk psychology theory contends that the "culturally shaped notions through which people organize their views of themselves, others, and the world in which they live" (Bruner, 1990 as cited in Gredler, 2005) contribute to an "understanding of the individual via his or her culture" (Gredler, 2005, p. 76).

Bandura's (1977) social learning theory emphasizes "self-regulatory processes in psychological functioning" to external forces as well as acknowledges the human capacity to integrate the influence of observation, symbols, and direct experience on human thought. The social learning "perspective of interaction" is a process of reciprocal determinism," in which behaviors, other personal and environmental factors, "all operate as interlocking determinants of each other" (Bandura, 1977, p. 9). The major focus of social learning theory is principally "environmental learner interaction" (Taylor, 1992, p.1). Behavioristic (rather than cognitive) social learning theories are essentially learning theories that have been applied to social situations and encompass the learning of socially acceptable behaviors.

However, as social learning theory evolved, others such as Piaget, whose theory of cognition influenced learning and teaching young children, definitively shaped contemporary social learning. Piaget (1932) suggested that the separation of the self

from others was a critical development for the individual and that separation was a slow process rooted in social interaction (e.g. the child-mother separation stage). Piaget examined the ever changing nature of knowledge and intelligence, which he believed to be constructed processes shaped by both the individual and the external environment (Gredler, 1997, p. 201). Through psychological inquiry, Piaget developed cognitive development stages which he proclaimed to be universal and predictable. These developmental stages known as sensorimotor, preoperational, concrete operation, and formal operation undergird Piagetian cognitive theory which is principally based on the processes that "account for progress from one level of reasoning to a higher level" (Gredler, 1997, p. 205). Piaget posits that the progress relies on four factors: 1) physical environment, 2) maturation, 3) ***social*** influences, and 4) equilibration – i.e. "maintaining a steady state while undergoing continuous change" (Gredler, 1997, p. 212). Piagetian theory says "cognitive conflict produced by discrepancies between existing mental schemata and perceived events motivates changes in thinking" (Grusec, 1992, p. 783).

The social cognitive approach positions the "source of change in maturation, exploratory experiences" and "the imparting of information by social agents in the form of guided instruction and modeling" (Grusec, 1992, p. 783). By creating salient connections, instructors can assist children to learn about contingencies between their actions and outcomes (Grusec, 1992). With the development and expansion of a child's "social reality" and the dynamic nature of more transgressions as a child ages, "moral standards of a more complex and generalized nature are introduced" (Grusec, 1992, p.

783). In terms of feasibility, Piaget's cognitive development stages can easily be used to develop school curriculum by separating academic concepts into appropriate grade levels according to cognitive development theory. Regarding instruction, Piagetian theory revolves around the individual learner and his/her cognitive stage of development in arriving at the proper conclusion for what should be taught. He alleged that the cognitive stage dominated other educational issues such as context, culture, previous experience, or individual interests.

Although the instructor remains "indispensable to create the situation and construct the initial devices [as in social learning theory] which present useful problems to the child," Piaget (1973) advocated the use of "active methods broad scope to the spontaneous research of the child or adolescent" and required "that every new truth" be "learned, be rediscovered, or at least reconstructed by the student and not simply imparted" to the student (p. 15-16). In curriculum development, Piaget supports "collaboration and interchange among students themselves" (Gredler, 1997, p. 219) and discourages that which is limited to transpiring only between teacher and student. Instruction proscribed from Piaget's cognitive development theory is often referred to as '*constructivism*' because "knowledge is constructed by the learner through self-directed and peer-collaborative research" (Gredler, 1997, p. 226). In Piagetian theory, "the emphasis is on the construction of new possibilities for knowledge – that is, on the construction by the individual of knowledge that is transforming of the individual and potentially transforming of culture, society, and history" (Meacham, 1996, p. 304).

Piagetian theory has been applied extensively to teaching practice and curriculum design in education (e.g., Bybee & Sund, 1982; Wadsworth, 1978).

For instance, with primary school children in the sensorimotor stage, teachers should try to provide a rich and stimulating environment with ample objects to play with that foster learning because in the sensorimotor stage (0-2 years), intelligence takes the form of motor actions (Piaget, 1954). Conversely, with students in the concrete operational stage, learning activities should involve problems of classification, ordering, location, and conservation using concrete objects. The cognitive structure during the concrete operational stage (8-11 years) is logical but depends upon concrete referents. Along with the modeling cues and cognitive aids called for in social learning theory, Piaget's theory develops specific recommendations for a given stage of cognitive development, and as such he would support school curriculum where: i) teaching methods used actively involve students and present challenges; ii) cognitive development is facilitated by providing activities or situations that engage learners and require adaptation (i.e., assimilation and accommodation).

Designing and laying a foundation for appropriate facilitation for learning in the curriculum is immensely difficult and complex. It is with much care and preparation that an effective instructor teases out the best in an individuals' performance at various stages of the curriculum. The development of effective practices aimed at engaging students sufficiently to guide their understanding and comprehension of the requisite course

material is no easy task. It becomes even more difficult and salient to the conversation when one is proscribed a curriculum, as opposed to allowing a teacher to be guided by adaptation and accommodation for the learners in the classroom as s/he sees fit based on years of training as a certified professional. The former point is at the nexus of today's transformation of the educational landscape in Texas with the onset of the TAKS assessment.

One might ask is –"How can mainstream instruction/educators grounded in social learning theory perspectives expose the subtle layers of racialization and inequity embedded within the TAKS accountability system and prevent it?" In order to prevent racialization in school, educators can implement culturally relevant teaching, which is defined as instruction that empowers students intellectually, socially, and politically by employing cultural referents to impart knowledge, skills, and attitudes (Ladson-Billings, 1997) and employ strategies from the caring literature (Valenzuela, 1999). Throughout the past 20 years, there have been various attempts to describe a curricular practice with a plethora of terminology to describe the efforts of culturally sensitive educators or practitioners within the education scholarship. They are culturally relevant (Ladson-Billings, 1992), cultural congruence (Mohatt & Erickson, 1981), cultural compatibility (Vogt, Jordan & Tharp, 1987), cultural appropriateness (Au & Jordan, 1981), cultural responsiveness (Cazden & Leggett, 1981; Mohatt & Erickson, 1982), cultural competence (Ladson-Billings, 1998), and finally mitigating cultural discontinuity (Macias, 1987).

A culturally relevant curriculum offers different examples from those presented in the content of textbooks, counteracts views depicting Western males chiefly as the hero in all events, and shows students, as well as teachers from the majority culture, that minorities have participated in a multitude of activities. Culturally relevant curriculum employs materials based on the culture and history of different ethnic groups. Ladson Billings (1997) posits culturally relevant teaching as a "pedagogy that empowers students intellectually, emotionally, and politically by using cultural referents to impart knowledge, skills and attitudes" (p. 18). Ladson-Billings (2005) utilizes critical race theory to analyze and critique educational research and practice in order to address persistent racial inequities in U.S. schools and teacher education (2005b).

Ethnographic research (Ladson-Billings, 1997; Valenzuela, 1999) presents examples of culturally relevant practices or 'models' in education by examining the teacher-student relationships, the curriculum, and instruction in the "schooling" landscapes of minority student learning environments. Further, Ladson-Billings' (1992b) work on an oppositional pedagogical approach of student discovery and empowerment in the literacy education of minority students demonstrates the underlying goal of culturally relevant teaching to produce critically minded and politically active citizens. As change agents in educational pedagogy, researchers (Valenzuela, 1999; Ladson-Billings, 2003) have illuminated the crucial role of teachers, administrators, teacher-educators, students,

and families who participate in a collaboration to restructure and reform education as a way to combat the effects of subtractive schooling in Texas' exit-exam landscape.

It is well known that students' language learning is promoted through social interaction and contextualized communication (Vygotsky, 1987), and that academic success may be promoted with scaffolding instructional strategies based on sheltered instruction such as the SIOP (Echevarria, Vogt, & Short, 2004) and CALLA (Chamot & O'Malley, 1994) models. There exists a wide variability in the design and delivery of sheltered instruction (August & Hakuta, 1997; Berman et al., 1995; Kauffman et al., 1994; Sheppard, 1995). As a result, educators often lack "sufficient preparation at colleges and universities to implement sheltered instruction effectively" to make the content comprehensible to English learners (Echevarria, Vogt, & Short, 2004, p. 13).

For English language learners, the cognitive academic language learning, CALLA approach (Chamot & O'Malley, 1994) offers educators the ability to plan, develop and implement carefully a curriculum that can foster the implementation of critical pedagogy in the secondary classroom where the high-stakes are prevalent. The CALLA program was developed by former teachers and researchers after extensive observations of successful classrooms were second language learners were successful. Upon careful observations of successful second language learners, Chamot and O'Malley (1994) found that ELL students were also successful in the reading and acquisition of their native language.

The success of the CALLA model is due largely in part to a methodology that freely allows the educator to select any concept in any of the content areas and tailor it, so that it encompasses some of the characteristics of critical pedagogy (see McLaren, 1989; Appel, 1982; Giroux, 1997). The CALLA model is triangular conceptually in that it encompasses content, academic language skills and learning strategy instruction. The CALLA work suggests that educators should strive to ensure that goals and instructional activities be authentic in recognition of the relationship between value and motivation. Supremely important is the researchers' notion which suggests that authentic materials include content which is 'culturally relevant' and has intrinsic value in students' lives, that parallels students' previous experiences, that can immediately be applied to new experiences, and is related to other information that second language students are learning (Chamot & O' Malley, 1994, p. 73).

Thus, the aforementioned theorists focus on the need for a nurturing environment and how an empathetic instructor can foster academic levels of success that will combat some of the deficit or subtractive effects in schooling. This particular research study does not take the position that assessment is subtractive or negative in and of itself, instead it is this researcher's contention that assessment can however be negative when performed *improperly* and with insufficient knowledge of the student's culture, language, background or prior content knowledge, and therefore *not designed* well with proper protocals for those requiring linguistic accommodations. Therefore, the aforementioned

scholarship of social learning theory coupled with leading critical race theorists provides the theoretical underpinnings of the instructional recommendations given later in this study as a viable method to combat the many deleterious effects of a possible misalignment in the Social Studies content area within the current TAKS based assessment landscape for language minorities in Texas.

High-Stakes Assessment Landscape of ELL Students

There exists a wide body of research on standardized assessment and instruction promoted as effective instruction for language minority students commonly known as English language learners, or Limited English Proficient students. In Texas, the state mandated public education system refers to these students as LEP students. However, the latter term holds a significant negative connotation to it, in that the student is seen as having a limitation or deficiency, and as such my preference would be to call them ELL – but, as a matter of data variable consistency and in an effort to dispel confusion when citing the scholarship, this research study utilizes both terms of ELL and LEP when referring to this population of students. Discourse on fairness in standardized performance assessment and appropriate ELL instructional strategy varies widely and is often highly politicized and controversial (Lam, 1995; Lui et al, 1997; Menken, 2000; Coltrane, 2002; Muñoz, 2002).

The discourse principally differs in the degree to which they promote English-based instruction and the support of language development and literacy in the primary

language which is mainly Spanish in the state of Texas. Strategies such as sheltered English immersion and English as a Second Language (ESL) programs emphasize instruction predominately, if not entirely, in English. English language acquisition is the chief instructional goal for ELL students. Proponents of these techniques claim that urgent development of English language skills enables students to fully participate in the instructional programs and classrooms of the entire school with approaches such as thematic study (Peregoy & Boyle, 2001) which illustrates how English learners can use oral and written language for learning academic material (Hudelson, 1986; Slavin & Cheung, 2003). Second language acquisition methodology focuses on a student's background knowledge, constructs meaningful and content based activities, and scaffolds instruction to build his/her academic English proficiency (Freeman & Freeman, 2002).

Conversely, bilingual education provides students instruction in both their native language (L1) and in English (L2), either simultaneously or in a transition sequence. Students may be transferred into English-only instruction at some point or may continue to be taught in a dual-language environment after exhibiting evidence of development and mastery of English skills. Bilingual education research states that native language instruction is critical to development of English literacy and also values students' native cultures and identities with hybrid language practices having a strong implication for curriculum, materials and assessment (Faltis & Hudelson, 1997; Zentella, 1997; Olsen, 2000; Gonzalez, 2001).

There is significant evidence that the ELL student population is burgeoning and steadily continues to grow. The state of Texas reports that of the total enrollment of 4,405,215 students, there were 684,007 ELL/LEP students illustrating a healthy growth rate in the ELL segment of the student population during the 2004-2005 school year (NCELA, 2005). Furthermore, research also shows that ELL students are rapidly disappearing from our high school population in great numbers (Valenzuela, Fuller, & Vasuqez-Heilig, 2006). With the spread of the "Texas' miracle" exit exam phenomenon, there has been a subsequent assessment craze adopted across the country.

The guiding assumption for this study is to support extensive research published on the negative effects of high-stakes tests and testing accommodations for ELLs (Escamilla et al, 2003; Coltrane, 2002; Muñoz, 2002; Linton, 2001; Reyes & Rorrer, 2001; Rivera & Stansfield, 2001; Rivera et al, 2000; Uriarte & Chavez, 2000; Lui et al, 1997) and minority groups such as Mexican Americans (Pedroza, 1998) and Latinos in general. However, apart from instructional strategy research or qualitative policy reviews, very little large scale quantitative assessment research of ELL students exists with a particular emphasis, if at all, on the effects of content on exit assessments. There exists some research from a quantitative framework, but it is sparse on the education landscape. For example, research (Abedi, 2003) has shown that the more language load (ie, linguistic complexity) in a test, the stronger the confounding between LEP status and content-based performance on that test. Abedi's (2003) structural models on LEP student results demonstrated a lower statistical fit among test items, as well as between items and

the total test scores. The factor loadings were generally lower for LEP students, and the correlations between the latent content-based variables were weaker as well (Abedi, 2003). As found in prior research studies (Abedi, Hofstetter, Baker, & Lord, 2001; Abedi, Lord, & Hofstetter, 1998), high-language-load test questions in assessments of content such as English may act as a source of measurement inconsistencies.

Education measurement expert, Abedi (2001, 1998) conducted research on math items used in the National Assessment of Educational Progress (NAEP) where test booklets containing either a Spanish version, a simplified English version, or original NAEP math items (in un-simplified English) administered to LEP and non-LEP eighth-grade students in California middle schools where only Hispanic/Latino students received the Spanish version and the simplified items were rewritten by content experts in linguistics and math. Limited English Proficient and non-LEP students performed significantly better on simplified items where significant differences in item difficulty were obtained on only 34% of the simplified items, suggesting that linguistic clarification of math items might be beneficial to all students (Abedi, 1998). Further, both Limited English Proficient and non-LEP students performed best on the simplified version, and worst on the Spanish version. Major findings of Abedi's rigorous research showed that LEP students scored more than 5 points lower than non-LEP students on the math test. Comparing scores on original NAEP items, the greatest score improvements, by both LEP and non-LEP students, were on the 'accommodation' version of the exam that included 'Glossary plus extra Time' -- LEP students scored higher with all types of

accommodation except the 'Glossary only' categorical accommodation on the assessment.

Language-related accommodations seem to be significantly effective in reducing the performance gap between LEP and non-LEP students regardless of the item's content difficulty (Abedi and Hejri, 2004). Abedi's (2001, 1998) robust research indicates that most accommodations helped both LEP and non-LEP students – the only accommodation that narrowed the score difference between LEP and non-LEP students was "Modified English." Thus, students who were better readers as measured by reading test scores achieved higher math scores. It should be noted that NAEP does not provide scores for individual students or schools; instead, it offers results regarding subject-matter achievement, instructional experiences, and school environment for populations of students (e.g., fourth-graders) and groups within those populations (e.g., female students, Latino students). Abedi's NAEP findings are particularly salient since the 20 year longitudinal results of the low scholastic achievement among Hispanics remains "significantly below that of white students" (Aiken, 2003, p. 240), and therefore LEP students, a subgroup of the Hispanic student population in Texas, more than likely exhibits, if not mirrors, the same pattern of 'success' on these achievement tests under the state's entrenched evaluation of student performance-based accountability system.

In the state of Colorado, researchers (Escamilla, et al 2003) analyzed the Colorado Student Assessment Program (CSAP) to determine the impact that standard-based education had on Latino/Hispanic students in general, and on Latino English language

learners specifically in Colorado during a 3-year period. The CSAP results in reading and writing in English and Spanish were compared for Latinos taking the CSAP in English, and all Colorado third and fourth grade students. Escamilla's (2003) results indicate that the percentage of Latinos meeting state standards as measured by the Spanish CSAP is equivalent to, and in some cases higher, than the percentage of Latinos who took the Colorado student assessment in English. Her research also demonstrates that the school report card grades are lower in schools with large numbers of English Language Learners which has serious implications for school accountability ratings since ELLs may lower the "reputation" of the school and cause further negative ramifications for school administrators, teacher incentives, and among others.

In California, the educational landscape for ELL students is not as harsh. California ELL students have a deferral of up to 24 months and until they have received six months of instruction in reading, writing, and comprehension in English before the high-stakes environment stifles their chances of success. The CAHSEE is an ideal example of a classroom-based assessment relevant to this content study since it is linked to classroom teaching. The CAHSEE was first offered in the year 2001 and beginning with the 2005-2006 school year, a passing score has been required for graduation from California's public high schools. Two sections of the CAHSEE test, English Language Arts (ELA) and mathematics are designed to assess content that, according to statutory standards, must be taught in junior high and senior high schools. According to the California Department of Education, the ELA assessment addresses "state content

standards through grades ten." In the reading domain, "this includes vocabulary, decoding, comprehension, and analysis of information and literary texts"; for the writing domain, "this covers writing strategies, applications, and the conventions of English" such as grammar, spelling and punctuation (California Department of Education, 2005).

A quantitative study (Garcia & Gopal, 2003) of raw scores on the California Standards Test in English Language Arts and scaled scores analysis on the CAHSEE and the CELDT (English proficiency test) found that students with higher levels of English language proficiency were more likely to pass both sections of California High School Exit Exam (CAHSEE) via an analysis of first year results of the state mandated CAHSEE required for students to earn a high school diploma. This work suggests California's high-stakes test failed to meet legislative objectives to increase achievement and close the achievement gap after two years of implementation. Instead, language-minority students with passing scores achieved significantly below white students on CAHSEE and on grade level standards-based assessments. For Texas legislators and education policy, their research study provides further state level evidence that English Learners at higher levels of English language skills were unable to pass exit exams in that state as well.

Furthermore, Garcia and Gopal (2003) found students with higher levels of English language proficiency were more likely to pass both sections of the state's CHSEE high-stakes assessment. Actually, CAHSEE results and legislative requirements reinforced educational inequities by assigning students to remedial instruction and special

classes based on test scores found as inadequate measures of meaningful levels of achievement. Garcia and Gopal's research demonstrates that CAHSEE regulations disadvantaged ELLs/LEP students and supports the argument that there is a mismatch between high-stakes tests and second-language acquisition theory.

Although many states and school districts require reading benchmarks and performance standards, these reading benchmarks may not be consistent or based on sound educational research concerning what is best for English language learners. Through an overview of the California English Language Development Standards and the implications they have on ELLs, Shin (2004) calls for the need to establish realistic grade-level student performance standards in English reading for ELL students with different levels of English-language proficiency. When the children being assessed have limited English proficiency, one of the most common means of assessing them is the use of parallel assessments: standardized achievement tests, developed in the native language of the English language learners, which emulate the content of their English-language counterparts (Huempfner, 2004). Huempfner (2004) attempts to examine the fairness of the testing process and instruments being used to make decisions about children and their schools. The research identifies some of the flawed assumptions that are made in the development of such tests for Spanish-speaking English language learners and argues that new measures must to be adopted to assure that these tests reflect the best interests of the populations to whom they are administered (Huempfner, 2004).

On the linguistic end of the existing ELL landscape, an increasing number of schools are offering two-way bilingual immersion programs as educational options to meet the needs of both language minority and language majority students (Senesac, 2002). Given the variability in program design and delivery of two-way bilingual immersion programs, it is necessary to examine individual programs to identify factors that may contribute to the effectiveness of the bilingual immersion model. A study conducted in Chicago in the oldest two-way bilingual immersion school in the Midwest on student achievement scores (particularly those of a cohort of low-income limited English proficient students), provides evidence that students consistently attain high levels of achievement in English reading and writing, math, science, and social studies despite receiving instruction in English for no more than 50% of the time (Senesac, 2002).

Longitudinal research conducted by Thomas and Collier (2002) on school effectiveness for language minority students' long-term academic achievement examined the education of language minority students in five school districts nationwide. Thomas and Collier's (2002) findings demonstrate the importance of providing a socioculturally supportive school environment for language minority students that allows natural language, academic, and cognitive development to flourish in the native and second language. Furthermore, this research indicates that each school context is different, and significant elements within each context can strongly influence students' academic achievement. They found that bilingually schooled students outperform monolingually

schooled students in all subjects after 4-7 years of bilingual education (Thomas & Collier, 2002). The Thomas and Collier (2002) study suggests that short-term programs are not sufficient for English Language Learners with no English proficiency and that the strongest predictor of second-language (L2) achievement is amount of formal first-language (L1) schooling.

Building on cognitive psychology, applied linguistics, and educational research, Cummins (2004) suggests that "bilingualism is associated with enhanced linguistic, cognitive, and academic development when both languages are allowed to develop," (p. 4) and calls for teacher education programs and school systems to implement programs responsive to these findings. Cummins (2000) develops the idea that conceptualization and assessment of language proficiency stem from power relations in society and that they have long lasting consequence on student opportunities in that society. Cummins states that students must acquire specialized academic literacy to do well on assessment measures. Cummins' (2000) reviews debate over the nature of first or second language proficiency and argues about appropriate assessment of proficiency. Regarding first or second language proficiency, Cummins (2000) revisits the distinction between conversational and academic language proficiencies with the two constructs that he popularized: Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP).

Cummins' original purpose of the constructs was "to warn against premature exit of ELL students (in the U.S.) from bilingual to mainstream English-only programs on the basis of attainment of surface level fluency in English" (Cummins, 2000, p. 58). Cummins (2000) provides a review of theoretical constructs that he borrowed (Vygotsky, 1987, 1967; Bruner, 1983) to develop his BICS/CALP distinction, including its subsequent elaboration into the four quadrants model along the intersecting continua of context embedded, context reduced, cognitively demanding, and finally cognitively undemanding. In organizing conversational and academic aspects of proficiency in the BICS/CALP schema of cognitive demands in relation to contextual supports, Cummins (2000) emphasizes the complexity of language learning. Cummins (2000) argues for an expanded conceptualization of proficiency that must include more time for ELL students to achieve the level of their monolingual peers. He suggests that "language development is characterized by increasing differentiation according to particular contexts and tasks," (Cummins, 2000, p. 55) and notes that certain proficiencies or registers are merely different from, not better than, others.

Research (Oakeley & Urrabazo, 2001) demonstrates the existence of a relationship between English language proficiency and achievement. The study also demonstrates that an underlying concern for the state of Texas should be that many English as a Second Language (ESL) limited-English-proficient (LEP) students require more than four years to reach a minimum level of English. Oakeley & Urrabazo's research (2001) demonstrated that the English proficiency level of English as a Second

Language (ESL) students can predict student performance on state measures such as the high-stakes Texas Educational Assessment of Academic Skills (TAAS), the predecessor of the TAKS exam, which was touted as another comprehensive assessment of Texas' state-mandated curriculum in certain subjects. Their research indicates that ESL students who have yet to reach a certain level of English language proficiency will not perform well on assessment measures of English, regardless of the subject being tested. Oakeley and Urrabazo (2001) argued that until ESL students have established a certain level of English language proficiency, it is inappropriate for achievement tests in English to be used for student and school district performance accountability as their results show that there is a significant relation between English proficiency and TAAS performance. This work posits that the policy of a one-year only exemption from TAAS (and by *de facto*, also today's TAKS test) for recent ESL immigration students remains inappropriate.

Abella, Urritia, and Shneyderman, (2005) studied approximately 1,700 English language learners and former ELL students, in Grades 4 and 10, using both an English-language (Stanford Achievement Test, 9th ed.) and a Spanish-language (Aprenda, 2nd edition) achievement test. The performances of the fourth and tenth-grade ELL students were contrasted on the two tests. The results demonstrated that ELL students typically answered more items correctly on a home-language mathematics test, compared to a similar English-language math test, regardless of their level of home-language literacy (Abella, Urritia, & Shneyderman, 2005). The research suggests that former ELL students

are often unable to exhibit their content-area knowledge on English-language achievement tests, possibly due to language and cultural barriers.

Summary

Clearly significant evidence of many large scale studies indicates that the achievement test results of ELL students, when tested in English, are not always valid measures of their content-area knowledge (Abella, Urritia, & Shneyderman, 2005). It is with this notion in mind that I extend the growing body of research based on comprehensive large-scale assessment scholarship (Abedi, 2003; Abedi, & Hejri, 2004; Abedi, Hofstetter, Baker, & Lord, 2001; Abedi, Lord, & Hofstetter, 1998) grounded in linguistically-sensitive inquiry to develop a specific content based model to better guide instructional strategies and planning for administrators at the district level, and guide public policy in education at the state level.

The methodology and rationale for this study are presented in the following chapter. Chapter 3 includes the following: (a) background rationale for research design, (b) context, (c) research hypothesis, (d) specification of variables, (c) data collection and data procedures, (d) regression methodology, (d) preliminary variance analysis, and (e) the creation of the CCSSE model.

Chapter 3: Methodology

Introduction

The passage of No Child Left Behind legislation and the publication of the National Research Council's Scientific Research in Education (2002) have generated much discussion and criticism of the call for educational research and evaluation that is more scientific. Essentially, this debate centers on what is "good" and "rigorous" research and how this has been inculcated into the merits of qualitative and quantitative research. This argument escalated when the stringent language regarding research in the *No Child Left Behind Act of 2001* and the National Research Council (NRC) report attempted to establish "methodological conservativism" as the only veritable truth (Lincoln & Cannella, 2004). Through six guiding principles, the NRC report (2002) intended to propose new ways to imagine quality educational research in terms of rigor and scientifically based research.

However, the NRC report actually reaffirmed the governing discourse that disqualified educational research suggesting that educational researchers should be taught how to be scientific and ultimately limited further inquiry by representing only one truth among many perspectives of truth and knowledge (Bloch, 2004). Lincoln and Cannella (2004) posit that the NRC report was used as a legitimating strategy for the redeployment of resources and power in response to the displacement of Western history ideals in the sociology canon with the rise of feminism, identity politics, postcolonial critiques, and

poststructuralist critiques of literary theory. Lather (2004) claims that the U.S. government has initiated an intrusion into the realm of educational research by legislating and in essence mandating that the scientific method be used via an evidence-based movement and critique of historical paradigms. Thus, what is considered 'quality' educational research is no longer qualitative inquiry, but rather is now 'scientifically based research" framed in a positivistic quantitative method.

Today, Americans live in what Eisner (2001 and 2002) describes as a rational society obsessed with perceptions of excellence based on a norm referenced perspective. The goals of such a norm referenced perspective are to clarify, define, and progress through measurements of quantitative data acquired via objective tests. The quantitative transformation of data is subsequently used to assess and evaluate the quality of education. However, one must not forget that from a research perspective, comparisons can be neither valid nor reliable if what is being compared to is not commensurate (Eisner, 1998).

Education is a complex social practice that invokes technical, aesthetic, humanistic, and moral demands on our theories and constructs because it is contextual, dynamic, and [from a constructivist's lens] value-laden. Children like all human beings are social actors in school's complex, multifaceted, multi-cultural environment. Given education's complexity, no one particular lens on human endeavors can meaningfully capture and represent what is "good" teaching and learning. Thus, alternate paradigms

are necessary and may be more important than methodology while conducting research in today's educational landscape. For example, an educational researcher could employ *interpretivism*, the alternative of mixed-methods, which elevates the voice of research participants to a primary position and thereby reverses the epistemological ordering of quantitative-experimental and qualitative interpretivist methods (Howe, 2004). Thus it follows that s/he would know why something like mixed-methods experimentalism, although incorporating an auxiliary role for qualitative methods, fails to understand the deeper epistemological roots of qualitative methods (Howe, 2004). The current debate over what the government perceives as sound educational research aims to restrict what counts as valid knowledge to one lens that privileges a technical perspective on "effective" educational practices and disavows aesthetic, humanistic perspectives with the words "because we see quantitative and qualitative scientific inquiry as being epistemologically quite similar and as we recognize that both can be pursued rigorously, we do not distinguish between them as being different forms of inquiry" (NRC, 2002, p. 19).

However, quantitative and qualitative inquiry does not necessarily share the same epistemology. Epistemology is the "branch of philosophy that studies the nature of knowledge and the process by which knowledge is acquired and validated" (Gall, Gall & Borg, 2003, p. 13). A postmodern construct of epistemology is the "study of how we know or of what the rules for knowing are" (Schuerich, 2001, p. 29), which may differ among educational researchers and social scientists. Within the same paradigm, one

could see distinct differences in the scholar's frame of reference. For example, Maxwell (1992) derived five different forms of validity from the practices of qualitative researchers. Maxwell (2004) contends that the reemergence of a narrowly defined scientifically based research marginalizes qualitative approaches. For Maxwell (2004), understanding people different from us and learning how to converse with them were among the most significant contributions that qualitative research elucidated in human understanding. He says this discourse brings forth the issue of '*dialogue across* the *differences'* between researchers employing different paradigms. Further, this dialogue can also heighten awareness for qualitative researchers regarding the importance of validity concerns and alternative interpretations in their research (Maxwell, 2004). Addressing the aspect of alternative interpretation strengthens the contention that even some qualitative research can be fully "scientific" without relinquishing the essential characteristics of qualitative inquiry (Maxwell, 2004).

Validity in qualitative studies refers to the credibility of the research product. Validity in qualitative research is defined as having "to do with description and explanation and whether or not the explanation fits the description" (Janesick, 2000, p. 393). Qualitative researchers believe that understanding "cultural values and social behavior requires interviewing or intensive field observation, with these being the only methods of data collection sensitive enough to capture the nuances of human living" (Strauss & Corbin, 1998, p. 28). Thus, there exist non-positivistic assumptions for validity in qualitative research since it is a fluid concept in and of itself, as illustrated by

Wolcott (1990). Wolcott (1990) provides nine points for establishing validity and subsequently, questions the appropriateness of validity in qualitative research entirely. Concerning validity in qualitative research, Wolcott (1990) posits that it is "something else, a quality that points more to identifying critical elements and wringing plausible interpretations from them, something one can pursues without becoming obsessed with finding the right or ultimate answer, the correct version, the Truth" (p. 146). Although, Wolcott (1990) declares that he does "not accept validity as a valid criterion for guiding or judging [his] work," (p. 148) many qualitative researchers attempt to establish some form of validity for their research. Qualitative researchers can choose to address validity via triangulation of data, member checking, audit trails, reflexivity, 'negative case analysis, and testing for rival hypotheses' (Gliner, 1994).

Ryan and Hood (2004) contend that both qualitative and quantitative methods are critical for studying the structural, political, and systemic issues that surround complex educational issues. Unfortunately, some quantitative researchers are apt to dismiss qualitative studies completely because they ignore representative sampling, with findings based only one a single or a few cases (Kvale, 1994; Sandelowski, 1995b). Guba and Lincoln (1998) assert that a chief distinguishing feature of the Positivist paradigm is that it strives to prove 'what is' within the belief that a definite (one objective) reality exists. Validity in quantitative research reflects a positivistic paradigm that typically calls for a static, replicable, experimental nature. Positivism relies on internal and external validity, reliability, and objectivity to judge the goodness or quality of the quantitative inquiry

(Guba & Lincoln, 1998, p. 213). Quantitative measures can be valuable tools when used properly to identify patterns and provide an explanation for activity in education practice. However, one should be cognizant that there will be a number of variables involved in the process of both the formation and evaluation of learning. Questions such as '*How does the student interact with the subject matter, with the teacher, with the other students?,*' however confusing, could be reasonably answered within a positivistic paradigm with a critical frame of reference that takes into account multiple regression (i.e. quantitative) methodology.

In the current positivistic epistemology, important knowledge is limited to what kinds of educational curricula and teaching strategies cause "good" learning for the average student. Illuminating that which is "effective" for the average student is equivalent to having only one variable or component of the entire education experience. As in an algebraic equation, what is missing from the formula are the rich understandings of the quality of the learning experiences, their potential for developing the human mind and spirit, and their connections to the human pathos and community.

Multiple frameworks for educational research and evaluation are crucial for our commitment to ensuring high-quality and equitable educational opportunities for all children. For the educational research field, the imminent threat of scientifically based research is that its perceived soundness would nonetheless allow for the continued and sanctioned neglect of those who have been marginalized and excluded from the

discourse. A political society like ours that disseminates its findings (reflecting the majority party's policy) to the general public requires a patented shift of the focus from chosen research method to the epistemological assumptions and paradigms held by the educational researcher. To that end this research study seeks to lay the groundwork for a more fruitful debate, which would be to focus on producing an educational researcher who has an understanding of the direction that multi-lingual/multi-cultural education should take and the ability to formulate the questions that need to be asked for English language learners and other 'non-mainstream' students who have been ill served by traditional classrooms not 'facilitating acquisition' of the requisite academic 'discourse' (Gee, 1996, p.146) for content mastery in the schools.

Background

Research indicates that teacher quality is the single most accurate school-based predictor of a student's performance in school (Sanders & Rivers, 1996). It could be easily feasible to give further credence to the importance of personality traits in learning styles. However, Cronbach and Snow failed to isolate any consistent pattern to indicate that students taking courses under teachers with similar or corresponding personality traits responded any better, when they shared the same personality traits (Cronbach and Snow, 1977). Nonetheless, researchers of teacher expectation (Brophy, 1983; Edmonds, 1984; Finn, 1971) also consider the possibility that the differential treatment model of expectancy effects (e.g., the interaction of expectation by individual teachers with

individual students (Cooper, 1979)), may be less predictive of student performance than institutional expectations and their effect on teacher and entire groups of students.

Still further, other researchers point to data that minority teachers who seem to have embraced the values and perspective of the white middle class have a detrimental effect on lower income, minority students (Rist, 1970). Thus, data findings are quite confusing. However, it could be something else -- in particular it is my contention that this is only part of the reason, for it cannot be that a teacher's quality, and educational preparation is enough. It must also be the prescribed curriculum or something within the program's framework that begs to be critically analyzed.

The curriculum must be one that empowers and acts as a transformational agent, similar to a chrysalis effect with a butterfly. Brazilian educator, Paulo Freire (1993) illustrates the unique importance of the teacher-student roles. In order to be a genuine educator, the model where teachers act as depositors of knowledge into the "blank" minds of their students must be unilaterally removed. Knowledge of academic content must be taught ala Freire (1993), as a collection of ideas in flux, aimed at engaging critical inquiry and developing critical consciousness for the sake of unveiling the moral, economic, and political contradictions of life. As such, instructors can embark on praxis for the greater social good versus teaching to the TAKS test or simply relaying a packaged curriculum pushed by both administrators and assessment agents of our current accountability system. Rather than a prescriptive solution, this research offers a predictive model and

instructional recommendations for improving practice and design through an examination of the challenging assessment environment faced by students and educators in the classroom.

The intent of the researcher is to highlight what is at the forefront of today's thinking about how our English language learner's educational performance can be increased and appropriately measured. This work is an effort to empower parents, educators, community leaders, and public policymakers with an aid to the re-design of evaluation and assessment materials that better meet the needs of children in their community. Thus, I attempted to isolate which variables (demographic, content, or language related) would have the most influence on a student's assessment performance via an examination of their TAKS scores and to attempt to validate the test maker's claims of scoring validity by posing an alternative analysis to the scaled score method with preliminary test administration results followed up with the second batch of assessments administered to the same population of English language learners.

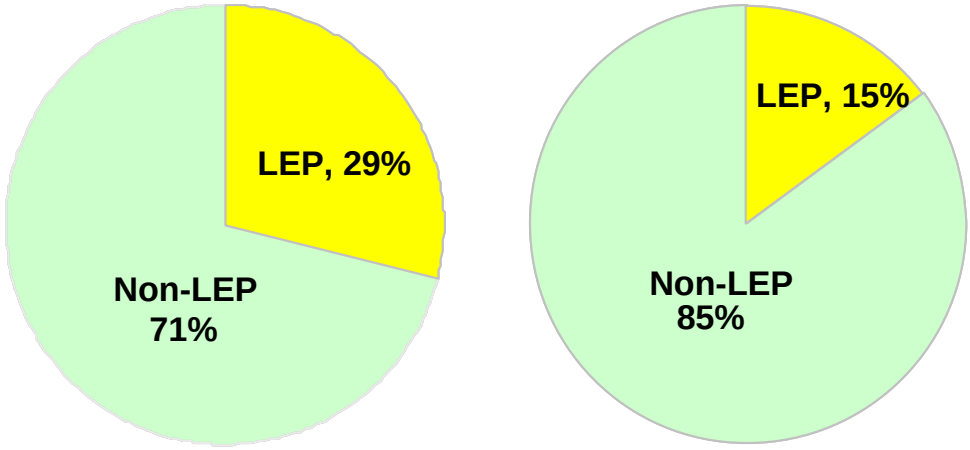
Context

Along with regression at the district level, this study expanded on preliminary evidence of dismal ELL/LEP performance on the Social Studies Texas Assessment of Knowledge and Skills (TAKS) exam required for students to earn a high school diploma in a particular subset of the state's total student population (Sanchez & Salinas, 2005). Descriptive statistical procedures were performed to determine differences in test scores

between the ELL and non-ELL student population, with a particular emphasis on Latinos/Hispanics because of aforementioned research suggesting that more than 90% of Texas' LEP students are Spanish speakers.

The analysis of the LEP student's achievement was performed using descriptive statistics from the 2003-2004 Academic Excellence Indicator System, a repository of quantitative indicators gathered and collected by the primary source (TEA, 2005). Although the school district has a very robust ethnic mix where almost half of the student population is Hispanic, interestingly Coastal's demographical composition exhibits a sizeable percentage of ELL/LEP students (29% or nearly one-third of LEP students) within the total student body (*See Figure 3.0*). By comparison, the state of Texas has a significant Hispanic population and only 15% of ELL/LEP students.

Figure 3.0: Coastal ISD LEP population vs. Statewide LEP population



Source: TEA, 2005

District Variance Analysis

In the greater metropolitan area where this ethnically diverse district is located, the Latino segment of the population continues to grow. Statistical data indicated that at the dawn of the millennium in 2000, Latinos comprised well over half (51%) of the total Coastal Independent School District population. The student enrollment for Coastal ISD in year 2003-2004 demonstrates that Hispanics/Latinos comprised 58% of the district's population (*see Table 3.0).*

Table 3.0: 2003-2004 Student Enrollment for CISD

Ethnicity	Percentage of Total
African American	29.8%
Hispanic	58.1%
Asian / Pacific Islander	3.0%
White	9.1%
Total Students:	**100%**

Source: Texas Education Agency, 2005

Further, the Coastal school district had approximately 29% of its total student population designated as LEP compared to approximately 15% of the entire student population in the state of Texas being designated as limited English proficient. This indicates that about one-third of this district's student body does not speak English fluently. Moreover, the ethnic distribution of Coastal ISD is predominantly Hispanic (58%) with less than one-tenth (9%) of the students belonging to the White sector of the school district's population, our nation's majority population (*see Table 3.1).*

Table 3.1: State of Texas LEP and Ethnic Distribution of LEP in Coastal ISD

	Texas LEP	CISD LEP	CISD Hispanic	CISD White
Percent	15.3%	29%	58%	9%

Source: TEA, AEIS 2005

It should be noted that for the year 2004-2005 year, only the spring 2005 SDAA II tests were released. However, due to a legislative mandate to release exams only every other year as proscribed by the Texas Education Code, Chapter 39, Subchapter B, and Chapter 101, Subchapter B of the Texas Administrative Code (TEA, 2006d, p. 190), the spring 2005 assessment that I required was not scheduled to be released to the public, nor the accompanying field test items. Thus, I could not analyze the TAKS exam questions in an item response fashion during the planning of this study in order to investigate the factor of linguistic complexity due to a lack of access to the items tested and access to item responses in order to randomly select questions that the students answered for a detailed linguistic analysis with advanced qualitative techniques.

Therefore, I settled for using the only publicly reported data available to me in order to develop inferences and a set of guiding assumptions for this dissertation study. This was the state's highly touted 'Met Standard' ratings. The assessment distinction of 'Met the Standard' represents satisfactory academic achievement for state level education administrators so I opted to formulate the groundwork for the theoretical underpinnings of my district-level modeling with this rating. According to the Texas Education

Agency, students in the Met Standard category performed at a level that was at or somewhat above the state passing standard.

The state of Texas uses the 'Met Standard' classification for students that demonstrated a sufficient understanding of the knowledge and skill measured at a specific grade level via: i) the difficulty of the items on the tests and; (ii) the number of items students have to answer correctly in order to pass the test. The standard is determined on the original form of the each subject-area assessment. When different test items are used in another test administration, the difficulty of the items, and thus the overall difficulty of the test, may and often does fluctuate. In order to compensate for the changes in test difficulty, the number of items needed to pass the test is adjusted downward. This adjustment is another reason that undergirds the decision to use the Raw score instead the more highly publicized 'Met the standard' score. Using the raw scores allows me to focus on the real performance of each student in absolute terms.

The Social Studies examination of the TAKS program was selected as a critical test form for content analysis because it tests a combination of general knowledge that relies on advanced English language reading ability. As previously stated, the state's Social Studies exit assessment has graphs and political cartoons, bar charts, numerical dates of significance, and physical element features that could easily allow one to erroneously assume that this test is fairly easy to show a mastery of the content. However, it is this researcher's contention that because the Social Studies exam is so

complicated with a heavy weighting of complex English-language laden terms and confounded by spurious content factors, it is inappropriate for the non-native English speaker.

The April 2005 Exit-level retest scoring report informed parents of Texas children that each spring, all public school students in grade 8, 10, and 11 were subject to taking the Social Studies TAKS assessment in an effort to gauge their understanding of the state's 'equalized' curriculum in each of four subject areas. If the student passes all the tests on the first attempt, then s/he has fulfilled the state's testing requirements for graduation. However, if the student fails the examination in that particular subject area, then s/he has multiple opportunities to retake the test and improve her performance with the help of the school (TEA, 2006b). The TAKS Social Studies exam assesses student's comprehension of topics in U.S. history and world studies, which includes world history and world geography. The knowledge and skills tested are grouped into five objectives. The TEA Objective 1 of the Social Studies TAKS assessment is called *Issues and Events in U.S. History*. Students are required to demonstrate an understanding of major issues and events in U.S. history such as the fight for independence during the Revolution, and the role of the United States in World War I and World War II.

The TEA Objective 2 of the Social Studies TAKS is entitled *Geographic Influences on History*. It contains a set of questions which call for a student to demonstrate an understanding of how geographic factors have influenced historical issues

and events such as the construction of the Panama Canal (TEA, 2006b). This objective requires the students to show the ability to read maps, charts, and graphs. The TEA Objective 3 is the *Economic and Social Influences on History.* The test items for this objective are designed to test an understanding of 'economic and social influences on historical issues and events such as the Great Depression and the impact of various reform movements in American society' (TEA, 2006b). The TEA Objective 4 is the Political Influences on History, which requires students to show a mastery of the political dynamism of this country via the development of representative government during the colonial era, and the fundamental principles of the US Constitution and Bill of Rights. The fifth objective is intended to ascertain a student's critical thinking skills by interpreting 'written and visual sources of historical information' (TEA, 2006b).

Analysis of the rates for ELL students who met the state's standard on the Social Studies exam of the TAKS assessments seems to indicate that there were significant problems in student achievement at the junior high school level as defined by the state statute. Of those students taking the Social Studies TAKS exam in the eighth grade, only half of the ELL students were able to pass the 2004 exam, even after taking into account an increase of 11 percentage points from the previous year. Specifically, only 39% percent of ELL students passed in 2003 and 50% passed the eighth-grade TAKS in 2004. Further, only 82% of the Latino/Hispanic eighth-grade ethnic population was able to meet the standard, in stark contrast to almost all of the White students who achieved that standard at a 97% rate (*see Table 3.2*) in the Coastal school district.

Table 3.2: Met Standard at Eighth-Grade – Coastal ISD vs. State of TX

8th grade	LEP	Hispanic	White	Texas
2004	50%	82%	97%	88%
2003	39%	76%	95%	87%

Source: TEA, AEIS 2005

The Coastal ISD statistics of the performance gaps between their ELL students and the aggregate of state's ELL population indicate a lower achievement for the eighth grade ELL students throughout the two assessment cycles under review (*see Table 3.3*) for this section of the study. The ELL students met the standard about 48 percentage points less than the state's figures in 2003 and by about 38 percentage points below in 2004 at Coastal ISD.

Table 3.3: Variance Gap at Eighth-Grade – Coastal ISD vs. State of TX

8th grade	Coastal LEP vs. State ELL
2004	-38
2003	-48

Source: TEA, AEIS 2005

Although there was a reduction in this gap from 2003 to 2004 levels, the difference between the performance of Coastal's ELL students and the state's ELL population exhibited a negative trend of failing to match the state's level of TAKS results for the Social Studies exam.

During the tenth-grade when the Social Studies assessment exam is administered for the first time at the secondary level, less than half of the ELL population meets the state standard in the content area. During the 2003 testing administration, only 66% of the Latino students in Coastal ISD met the standard and only one third (35%) of the ELL students passed the TAKS Social Studies exam. Conversely, not all the tenth-grade across the state of Texas fared as well as Coastal ISD's White students – the state figure was 80% in 2003 and 88% in 2004, well below the White student population of the Coastal ISD who exhibited a strong passing rate of 93 percent and 96 percent, respectively (*see Table 3.4*).

Table 3.4: Met Standard at Tenth-Grade – Coastal ISD vs. State of TX

10th grade	**ELL**	**Latino**	**White**	**Texas**
2004	42%	78%	96%	88%
2003	35%	66%	93%	80%

Source: TEA, AEIS 2005

Interestingly, the amounts of variance for the tenth-grade students remained level with the previous year's performance on the TAKS exam at both a district and statewide level. The school district to statewide performance variance which I calculated from the state's aggregate statistical data (*see Table 3.5*) indicates that there was not a dramatic decrease, with only a 1 point change from the 2003 assessment for English language learners taking the TAKS exam in 2004.

Table 3.5: Variance at Tenth-Grade – Coastal ISD vs. State of TX

10th grade	Coastal ELL vs. Texas ELL
2004	-46
2003	-45

Source: TEA, AEIS 2004

As an eleventh-grade student, when the assessment exam is administered as an exit exam to the student, the stakes become even higher for the ELL student. Without passing this exam, the student will not receive a high school diploma. No matter, how many courses the student has taken, or how hard s/he has worked to maintain a scholastic GPA, and battling enormous socio-economic barriers at home, only a little more than half (53%) of the ELL student population in Coastal ISD passed the (*see Table 3.6*) Social Studies TAKS exam. Interestingly by the year 2004, 78 percent of the ELL students passed the exam during the next administration at the Met Standard rate.

Table 3.6: Met Standard at Eleventh-Grade – Coastal ISD vs. State of Texas

11th grade	ELL	Hispanic	White	Texas
2004	78%	93%	99%	97%
2003	53%	81%	96%	90%

Source: TEA, AEIS 2005

This is a significant increase, indicating about one quarter increase in the Met Standard rate between years 2003 and 2004 for Coastal ISD's English language learners. This sizeable difference calls for an examination of the possible factors causing this

increased passing rate. A further study of this particular increase might illuminate the variables leading to successful passing rates of the TAKS for the ELL student.

For the exit exam (eleventh-grade) student population, the difference between ELL students in the district and those statewide showed a lag of about 19 points (*see Table 3.7*). This would indicate that the TAKS performance gap is closing amongst the two groups when they are administered the exam during the eleventh-grade. While this analysis utilized descriptive statistics and not inferential statistical methods, one could identify a pattern of a diminishing gap indicating that by the exit-level Social Studies assessment, the students are not performing as far apart from each other's performance levels for the year 2004.

Table 3.7: Variance at Eleventh-Grade – Coastal ISD vs. Texas

11th grade	**Coastal ELL vs. State ELL**
2004	-19
2003	-37

Source: TEA, AEIS 2005

These statistics reflect an environment that is increasingly unfriendly for ELL students in the state of Texas. Although this preliminary analytical review of the educational performance of ELL students with respect to the Social Studies portion of the TAKS exam seems to indicate that they are *unable* to meet the state's satisfactory rating metrics for receiving a diploma, it is unclear as to what is causing this dismal student

performance on the TAKS exam. In order to help illuminate the latter question, I turn to multiple regression analytics using district level data.

Research Hypothesis

This research intended to measure the performance gap between LEP and non-LEP secondary education students in Texas. Further, the study was designed to analyze the importance of multiple factors and their relationship to ELL students' performance on standardized exit level exams by examining one large urban school district with the use of ordinary least-squares regression methodology to isolate the most critical factors in TAKS performance levels.

The primary research focus revolves around the appropriateness of TAKS assessment of English language learners, the Social Studies curriculum, and policy interventions that would increase ELL performance rates in secondary school exit exams. The following research questions frame this study about providing interventions for ELLs, and by *de facto* a certain percentage of Texas' Latino students (97% of all ELLs speak Spanish), in order to provide policy-makers with recommendations that can be implemented in communities nationwide. The particular questions in this study are: i.) What factors appear to impact TAKS performance?; ii.) How does academic achievement measured in terms of years in school and prior exposure mediate the relation between social class background and Social Studies TAKS performance, respectively?

As a researcher and evaluator with a particular emphasis on second language acquisition praxis, I became highly intrigued in my quest to ascertain which factors appear to impact TAKS performance of ELL students without necessarily having to rely on only those driven by language inequities. Thus, I used quantitative analytical methods of multiple regression to compare the performance of English language learners and their non-ELL counterparts to isolate any differences. Using large scale assessment data, I decided to ascertain whether content, which should accurately reflect an ELL student's academic achievement, directly influences his/her performance on the high-stakes assessment landscape in the state of Texas. The supporting sub-questions of this research are:

1) Do non-ELL students perform better than ELL students on TAKS tests?
2) Does duration of schooling environment influence performance on TAKS exams?
3) Does course completion and mandated coursework offerings (World Geography, World History, U.S. History, and Economics) affect performance on the Social Studies TAKS assessment?

Dependent Variables – *Performance Measures*

It is beyond the scope of this or any other study to create an overall definition of successful performance that would be universally acceptable to all practitioners in the education measurement field. Therefore, I focused on the student's performance on the standardized exit assessment (the Social Studies scores of TAKS examinations). I used my prior assessment research experience with designing large scale assessment

instruments (Sanchez, 2006) to help identify indicators/variables that would be consistent with various definitions of empirical performance assessment and have predictive validity for language minority students. I was interested in testing the indicator of performance (the raw Score) against the effect or "interplay" of all other variables. The assessment landscape of Texas is structured so that all students take the "exit-level" TAKS assessment in grade 11 and are offered an opportunity to re-take the exam in grade 12 in order to receive a high school diploma. Thus, the purpose of my analysis was to identify important characteristics of LEP students (for both eleventh and twelfth-grade) that were actively enrolled in high school in order to isolate their effects on the student's exit examination performance.

Independent Variables

School districts routinely collect extensive information about the characteristics of their students to report to the Texas Education Agency and other federal agencies. Data for this study came from a school district's student information system, which has information on students' enrollment and departure, attendance, TAKS scores, and background characteristics, amongst others. Although the data available for this study did not provide a comprehensive set of indicators for each concept, they were sufficient to provide a test of the model's conceptual framework (*see Appendix*). I used the data available to develop measures for each of the conceptual categories from my framework. When this study was designed, I had access to terms already collected by the state's testing administrators at the TEA. The data provided an avenue to allow me to carefully

choose independent variables for my analysis, and begin to develop an operational measure for those variables that the district might not already have on hand. In addition to the 'Grade' level variable which designates the grade level in which the students were enrolled at the time when the exit-level TAKS was administered (April 2005 for eleventh-grade students; March 2004 for twelfth-grade students), the demographic variables collected with the TAKS exams are described in Table 3.10 below.

Student Characteristic Variables

The data from Texas Education Agency (TEA, 1998) indicated that eighteen percent of the students entering Grade 1 in 1992-1993 had limited English proficiency. The state's findings report that ELL students were predominantly economically disadvantaged Hispanic students and represented almost half of the Latino/Hispanic first grade students. Further, the state reported that fewer than 10 percent were identified as recent immigrants to the United States (TEA, 1998). Therefore, ethnicity, economic disadvantage (often referred to as socioeconomic status) and, to some extent, immigrant status are important factors for consideration and integration into the Social Studies performance models to be described later in this research study. However, since the Coastal district does not currently gather data on immigrant status or even U.S. residency, when reporting TAKS assessment indicators to the Texas Education Agency, the "immigration" student variable was not included in the regression models for analysis as this information was not accessible at the individual student level.

Table 3.8: Variables in the Student Data

Variable Name	Value	Description
Gender	M	Male
	F	Female
Ethnicity	1	American Indian or Alaskan Native
	2	Asian or Pacific Islander
	3	African American
	4	Hispanic
	5	White, not of Hispanic origin
Economic Disadvantage	1	Eligible for free lunch
	2	Eligible for reduced price meals
	9	Other economic disadvantages
	0	Not identified as economically disadvantaged
LEP	1=Y	Students identified as Limited English Proficient by LPAC
	0=N	Students not Limited English Proficient by LPAC
English as a Second Language (ESL)	1=Y	Student is participating in a state approved full-ESL program (i.e., participates only in ESL)
	0=N	Student is not participating in a state approved full-ESL program
World Geography; World History; U.S. History; U.S. History; Economics; Government (content)	1=Y	Student completed course
	0=N	Student did not complete course
Social Studies code	A	Absent
	X	Student is ARD exempt, do not score
	P	Previous Pass (July exit level only)
	O	Other (e.g., illness, cheating)
	L	Student is LEP exempt, do not score (grade 8; 10)
	S	Score
	D	No document processed for subject (grade 10;exit level)

Source: TEA, 2004

The above table (*Table 3.8*) does not include all terms that were utilized in the CCSSE models. Other terms and/or indicators were developed as this researcher's own creation and are discussed in the following sections of this chapter.

Duration

During my tenure as a composite Social Studies teacher in the public school system, this researcher was privy to the harsh dilemmas and obstacles that many members

of my ELL student body faced when preparing for, and ultimately taking, the Social Studies TAKS assessment. First and foremost, this educator-researcher was confronted first-hand with issues that surpassed the linguistic impediments and challenges that these children were facing due to the language-dependent nature of the exit TAKS exams. Not only were the students telling me that they lacked instructional support, by not having any other bilingual teachers at the school and not feeling wanted by the secondary school's administration, but often they reported difficulties related to migration between schooling environments at the district, intrastate and sometimes even international level. These challenges were especially difficult for me to confront as I very much empathized with the children who migrated, as a former migrant farm worker myself and 'advocate educator' (Salinas & Reyes, 2004), I was determined to adapt my instructional planning around their school attendance to make the most of their schooling experiences.

Due to prior research and personal experience, this researcher chose to critically analyze the component of duration that a student has been in a U.S. school environment (measured in years) within the predictive model for determining ELL performance on the TAKS assessments with this study. The duration variable serves as a proxy for the length of U.S. residence construct (Valenzuela, 2004, 1999; Stanton-Salazar, 2001) since this was a non-quantifiable *assimilation* variable for direct inclusion in the CCSSE regression modeling. Critical race theory scholarship on U.S. residency highlights the importance of this standard measure of acculturation as it effectively gauges the *racialization* (Blauner, 1994) level ELL students have internalized in a functionalist setting of U.S. schools

implementing a criterion referenced assessment of learning and measurement of academic achievement.

Economic Disadvantage

Research has shown that socioeconomic status (SES) and test scores are positively correlated. Further, there exists a comprehensive explanation for contrasting performances by immersion and submersion children (Ervin-Tripp, 1970) to explain why low SES minority language children respond unfavorably to themselves as a whole with respect to academic language and literacy. The positive test score and SES correlation has been used as an important property of standardized tests themselves such as with SAT scores which are not "socioeconomically neutral" (Rothstein, 2004), nor lacking a certain degree of "sensitivity" of test scores to SES (Geiser & Studley, 2001, p. 10). Since a majority of ELL students are classified as economically disadvantaged by socioeconomic status, it becomes an important predictive variable for my conceptual model. Economically disadvantaged students have not performed as well as their non-economically disadvantaged classmates, regardless of their English proficiency (TEA, 1998).

A review of historical state level assessment data illustrated that both ELL and non-ELL students, who are economically disadvantaged, experienced higher retention rates than non-economically disadvantaged students. For example, those economically disadvantaged students who were promoted to grade five in 1996-1997 were less likely to take TAKS' predecessor exam, the TAAS exam, and those who took the English TAAS

exam had lower passing rates. This relationship remained after controlling for student ethnicity (TEA, 1998).

Thus, this researcher chose to analyze the student's socioeconomic status and whether s/he is an educationally disadvantaged student as a predictor for performance. For the regression models, a data transformation technique was employed whereby this researcher coded the non-economically disadvantaged students as "0" and transformed the remaining three socioeconomic status classifications as a "1". These include the 'eligible for free lunch', 'eligible for reduced price meals', and the 'other economic disadvantages' indicators as determined by the state's ***Title I*** formula. Therefore, a comparison could be performed between those students that had a lower socioeconomic status from those students that did not experience any economic disadvantages. It is important to note that Title I is the state's largest federal aid program for elementary and secondary schools (TEA, 2007c, p. 16). Title I is formula grant program that provides federal funds to state educational agencies and local school districts to support high-poverty schools.

Exposure

It is well known that scores on an exam may increase as students become familiar with that exam's format, regardless of "real improvement in the broader achievement constructs that tests and assessments are intended to measure" (Linn, 2000, p. 4). Further, performance increases on state assessments could be due partly to the function of "teaching to the test," i.e., focus on subject matter and formats that appear on the exam,

so that essentially students become familiar with the exam's format (Mehrens, 1998). This factor of familiarity with the assessment for the construct of performance requires intensive analysis.

In the spring of 2005 while designing what the researcher has coined as the "***CCSSE"*** predictive model and undertaking the steps required for requesting student level variables for analysis from Coastal ISD as part of prior research (Sanchez & Salinas, 2005), I chose to isolate and identify latent effects related to a student's prior *exposure* to the TAKS exams. This stemmed from a previously forced reliance on the 'Met Standard' scores for performance as this researcher had not been granted access to raw scores or the state-defined 'Scale' scores at the district level. I suspected that I needed further and in-depth clarification of the movement or fluctuation of the 'Met Standard' levels across statewide TAKS assessments allowed by the TEA's expert panels and how that might be justified as acceptable by the state's testing consultancy.

I understood that, for example, a student might have to answer correctly 59.5% of the items to meet the standard on the original form of the test. Also, when a subsequent test is administered, it is done so with slightly more difficult items. If the standard of 59.5% of the items in the test were used exclusively, students who took the second test would be held to a higher standard than students who took the first test. The percent of items required to pass would be the same, but the difficulty of the items would be different (typically higher). In order to set the standard on the second test to an

achievement level equivalent to that of the first test, the tests are equated, and the percent of items required to pass is adjusted. In this case, the percent of items required to pass the second test would be less than 59.5%, since the items were more difficult.

Prior empirical research (Sanchez, 2006) on the performance rates of secondary Math and English Language Arts exit examinations for secondary LEP youth in a central Texas school district led this researcher to contemplate the 'repeat testers' component even further as a critical variable for success on the TAKS assessments. Research findings (Sanchez, 2006) of an area of Texas which was heavily Hispanic with Spanish-dominant ELL students led this investigator to hypothesize that this exposure data was not yet being systematically analyzed as part of the state mandated requirements for school district administrators and/or actively being mined for instructional interventions at a local district level. Statewide empirical evidence of the "disappearance" of English language learners has further strengthened my contention about the possibility of a potentially damaging 'collateral effect' when depriving students of "test exposure and, thus, experience on an examination" resulting from linguistically-based exemptions on TAKS assessments (Valenzuela, Fuller, & Vasquez-Heilig, 2006, p. 196). The aforementioned research further highlights the saliency of exposure, as a critically important component to the *CCSSE* content-based model, as a rough proxy of the *assimilation* construct when developing more appropriate measures for ELL performance.

Often language proficiency is identified as the leading culprit to the poor performance of ELL students on standardized assessments. However, research indicates that instead it might actually be the 'opportunity to learn' (Butler & Stevens, 2001), which may be determining higher achievement for ELL students. The fact that the U.S. has a variety of programs for ELL students may in of itself be a prime obstacle to the delivery of a standard curricular experience in school. Research suggests that even the highest scoring ELL students may not have received the necessary content instruction to answer questions on the test due similar response rates as that of their native-English speaking counterparts who also took the content test (Stevens, Butler, & Castellon-Wellington, 2000).

In the eleventh-grade, the student would have only had one opportunity to have taken the high-stakes exit test and passed it (re-test is classified as zero), or failed it and had to retest (i.e., retest is classified as '1') for the content area of Social Studies. However, when the student is in the twelfth-grade, s/he would have had significantly more chances to take the test and thus, the "re-testing" variable becomes 0, 1, 2, 3, or 4. Thus, the variable takes on a different dimension for the two distinct cohorts. Furthermore, each data set had a unique student identification number contained in one data set, with not a single value of duplication for a student's identification number in the other, illustrating to me that these were distinctly different individual students. Therefore, two separate models (one for each cohort) are appropriate to analyze independently.

Content Variables

Aguirre-Muñoz (2000) found that "prior knowledge and the extent to which students are exposed to the content of the test have the greatest impact on test results" (p. 121). Aguirre-Muñoz (2000) explored accommodation strategies to assess subject matter understanding of English language learners by manipulating both the reception and response modes of cognitively complex performance assessments. Her accommodations to the reception mode involved linguistic modifications to a written history explanation task based on the content understanding assessment model via the use of a less discourse-dependent task: the construction of knowledge maps that are designed to graphically depict a student's knowledge in a given domain and are considered less linguistically demanding. Aguirre-Muñoz' (2000) research analyzed twelve teachers and over 800 seventh-grade students suggesting that ELLs' content understanding may be underestimated by complex performance assessments. In addition, the precise level of a student's English proficiency was found to be useful in determining the most appropriate linguistic accommodation for ELL students.

Therefore, exposure to content and the assessment instrument itself formulates one of the key factors of ELL performance that becomes the foci for further exploration with my particular study of secondary students in the state of Texas. Due to documented research (Abella, Urritia, & Shneyderman, 2005), it is my contention that the content mastery and completion of the required coursework is of vital importance and should be

analyzed in greater detail. Thus, course completion and content exposure could inadvertedly be causing the ELL/LEP students to be ill-prepared for the exam, not simply from a language standpoint, but as a result of a mismatch in their exposure to the content or maybe even a lack of vertical integration within the curricula. Therefore, I considered several variables in my models that might define the coursework relevant for the Social Studies TAKS assessment.

Data Gathering Procedures

This study examined data collected as part of the Texas Assessment of Knowledge and Skills (TAKS) exam required for students to earn a high school diploma. The data used in this dissertation comes from an urban school system in Texas that is one of the largest in the state of Texas. The district (Coastal ISD *pseudonym*) has a viable ethnic distribution for comparison purposes within the composition of the entire district's population. Coastal ISD is a district with about 200 thousand students. It is a large school district with a significant number of Hispanic secondary students and about twenty high schools affording me a greater opportunity for a high sample size and a high degree of confidence that there might exist latent Latino/LEP correlations within the data. The district has a significant (almost 60 percent) concentration of Hispanic student population.

Additionally, Coastal ISD was selected due to a rich district demographical and ethnic mix which exhibits a significant amount (roughly one-third) of ELL students

within total student body, as compared to the statewide (15%) composition of its entire TAKS test population and a significant Latino population. The average Social Studies class size is 28.7 vs. 22.6 (state) where less than half of the LEP population graduates (42.2% graduated in 2003 and 47.1% in 2002). The Social Studies TAKS exams exhibited by the district data on the released 2005 exit exams showed a high (91%) percentage of students attaining the "Met Standard" rating in the Social Studies assessment, propelling me to want to delve deeper into this school's context in person at a localized level.

I utilized data devoid of any identifying information in order to protect the students' and district's confidentiality (per university IRB protocol). After programming input, I employed the Statistical Package for the Social Sciences (SPSS) program to analyze the student data records. When referring to information in files transmitted to or received by the researcher, I maintained all correspondence confidential and conscientiously employed a pseudonym when referring to the district during all communication between myself and anyone not employed by the district(s).

I used data collected by Costal ISD for the ELL population and the non-ELL student population for all high schools' exit level TAKS exams for grade 11 and grade 12 in the core curriculum subject area of Social Studies. The district wide student level data that I requested includes the following variables: 1) Gender; 2) Family income; 3) Ethnicity; 4) "Exit exam" Grade level; 5) LEP status; 6) ESL status; 7) Duration – the

length of time in United States schools; 8) Prior content area instruction, i.e. number of "Social Studies" subject matter courses taken (World Geography, World History, U.S. History since Reconstruction, Government, Economics); 9) TAKS Score on "Social Studies"; 10) Number of times a student has taken the TAKS (re-testing is at "0" level); 11) TAKS Raw Score; i) TAKS Code (only "S" coded student records were examined); 12) all test administrations for the school year, i.e., the day and month the test was administered, for all the exit level high school grade levels *(see Table 3.0 above*).

The data for the regression section of this study was obtained by "cleaning" certain variables, which were provided to me, via a customized algorithm created to arrive at consistent data values. Data consisted of 7,913 observations for the twelfth-grade and 8,137 observations for the eleventh-grade (i.e., 1 observation = 1 student record) and allowed a very good fitting model on each of the datum sets.

First, I received performance data on all four of the state's mandated TAKS exams (including Social Studies) with score codes varying from A for "Absent" to "S" for "score." In the twelfth-grader dataset, one record was duplicated so I eliminated this student record from the data analysis. The Coastal district had 2 rows with this same student identification number, so I deleted the second one which had an "X" (i.e., student is ARD exempt, do not score). Additionally that record did not have a score code in the Social Studies examination.

Second, I chose students who had received the Social Studies exam code of "S" for examination since the other codes would make the data analysis faulty. Finally, in order to test my CCSSE model with regression analysis, I analyzed the 'Raw' score in my dataset as opposed to using the more problematic "Scale" score, a derived score adjusted each via transformation by the state's educational consultant firm using the Rasch Partial-Credit Model (TEA, 2006c). I decided to employ the Raw score for various reasons. For instance, if a student achieves the maximum Scale score, it cannot be determined if the student's true 'achievement' was that score or if the student would have achieved a higher score if that score was possible. Raw scores are test data in their original format, not yet transformed statistically in any manner, such as by conversion into percentages or by adjusting for level of difficulty of task/contextual factor, and are the "appropriate object of most data handling because they contain information at a greater level of detail" (Davies et al., 1999, p. 163) for statistical test analysis over total scores or other transformed scores.

The Scale score is a statistic, and as described above a type of transformed score, which provides a comparison of scores with the state's standard and accommodates for differences in the difficulty of the test form used for each administration (TEA, 2006c). Thus, the Scale scored can be used to determine whether a student met the standard or achieved commended performance, but it *cannot* be used to evaluate a student's progress across grades or subject areas, nor is it a metric which is 'useful for reporting purposes due to the properties of [the] scale" used (TEA, 2006c, p. 121). However, the 'Raw'

score is the number of correct items on the TAKS assessments and more importantly, *is not* adjusted and is therefore, a more accurate reflection of each student's performance. Furthermore, the expert recommended performance "cut-scores" that are used in conjunction with linear transformation of the underlying Rasch-based proficiency level for the scale score benchmark change too frequently (without a public explanation) to provide me with a reasonable level of confidence to use it in this analysis.

Model Formulation

Many statistical procedures are utilized in analyzing test scores and using them for evaluative and prediction purposes. Among these procedures are multiple regression analysis, discriminant analysis, profile analysis, multidimensional scaling, and factor analysis. All of the aforementioned methods are considered in detail in the literature on advanced statistics and psychometrics (Nunnally & Bernstein, 1994), and as such the reader is referred there for further consideration. This study is an exploratory study of available quantitative data from a large school district in Texas with a significant population of Hispanic students using the multiple regression method.

Analytical estimation method of OLS (ordinarily least squared) regression, a sound econometric methodology (Johnston, 1984) as illustrated via established research (Mosteller & Tukey, 1977; Seber, 1977; Graybill, 1976; Rao, 1973; Searle, 1971), and perhaps the most common estimation procedure for regression analysis, was appropriately employed to compare the performance of ELL students with their non-ELL

peers in high school. In language testing, multiple regression can be used to indicate the amount of variance that all of the predictor variables explain if the researcher has several independent (predictor) variables in order to describe the strength and direction of a relationship between two or more variables (Mertens, 2005, p. 403) and thus, "allows predictions to be made about **performance** on one variable on the basis of information about performance on another" (Davies et al, 1999, p. 165).

In order to address the overarching questions of interest, this study also included descriptive statistics, i.e. the characteristics of the samples (Mertens, 2005, p. 400). The respective data presentations are reported in table format as mean score, standard deviation, and both minimum and maximum values. To answer each of the three supporting sub-questions, inferential statistics was used to evaluate or infer the degree of significant difference present when measuring the performance of ELL and non-ELL students in the high schools of the Coastal Independent School District. The regression analysis included the least squares estimate, their standard errors, their *t*-statistic, *p*-value significance, and the upper and lower bound confidence intervals for the beta coefficient using the standard 95% confidence level. The analyses, interpretations, and recommendations followed the principles that have been identified by Gall, Gall & Borg (2003).

All independent variables relevant to the *CCSSE* conceptual model were checked for multicollinearity. Multicollinearity is defined as existing when two or more

independent variables are highly correlated and influence the parameter estimation (the significance of beta, the value of beta, or both). The regression analytic procedure is unable to extrapolate or eliminate the relative effects of individual variables that are perfectly correlated.

In this study, this researcher searched for pairs of independent variables that had a very high linear correlation. After screening the independent variables for multicollinearity, the ESL variable was removed from the models since it was perfectly correlated to LEP. This particular screening step was replicated since a similar situation had been encountered and documented in previous English language learner/Limited English Proficient student research (Sanchez, 2006).

This researcher had intended to identify the scoring validity of the TAKS assessment across successive administrations. However, it proved impossible to merge the dataset into one combined dataset. The researcher realized upon cleaning the data, that the student identification numbers did not match up in the second data set and thus, there existed unique data records in both of the data sets for secondary students in the Coastal Independent School District (CISD). This limitation also arises from the fact that this research contains the datasets for both twelve grade (March 2004 administration) and eleventh grade (April 2005 administration) students representing two distinct cohorts. Although one would desire to have one cohesive dataset for the regression model, a uniform sample is simply not possible. Roughly, about 50% of the ELL students do not

pass the Social Studies exam at CISD and this researcher suspected that these were more than likely the ELL students. Thus, a strong percentage of the records from the grade eleven dataset would not match the records in the grade twelve dataset.

CCSSE Model

Coursework Completion, Content of Social Studies and Exposure (CCSSE)

The multivariate regression model that was utilized is described and conceptualized via the following mathematical formula:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ \ldots \ + \ \beta_k X_k + \varepsilon$$

Where *Y* is the dependant variable, *X* denotes the independent variables, ε is the error term, and β_0 is the intercept.

Based on the factors/variables as discussed above, this researcher has developed a conceptual model that explains the difference between the ELL and non-ELL students' performance on the Social Studies TAKS exam taking into account their coursework completion, the content of those Social Studies courses, duration in U.S. schooling environment, their 'limited English proficiency' status, and previous exposure to the TAKS assessment. This model can be described as the culmination of inputs based on the scholarship of critical race theory and social learning theory, supported by appropriate instruction and or mitigating interventions which like a plant's fertilizer could actually support the process of successful achievement on exit-exam assessment performance,

with each of the component variables expressed as individual determinants or factors of influence in the process (*refer to Appendix*). Thus, the *CCSSE* conceptual model is defined as:

$$\text{Student performance} = \beta_0 + \beta_1(\text{Gender})_1 + \beta_2(\text{Ethnicity})_2 + \beta_3(\text{Economic Disadvantaged})_3 + \beta_4(\text{LEP Status})_4 + \beta_5(\text{ESL Status})_5 + \beta_6(\text{Duration in U.S. School})_6 + \beta_7(\text{Course U.S. History})_7 + \beta_8(\text{Course World History})_8 + \beta_9(\text{Course World Geography})_9 + \beta_{10}(\text{Course Economics})_{10} + \beta_{11}(\text{Course Government})_{11} + \beta_{12}(\text{Retesting Exposure})_{12} + \varepsilon$$

Where "Student performance" represents:

- Social Studies score an eleventh-grade high school student receives which represents his/her performance, or
- Social Studies score a twelfth-grade high school student receives which represents his/her performance.

Summary

This chapter provides an extensive discussion of the components of the *CCSSE* model with justification for inclusion of each independent variable. The result of this is a formulation of regression models to be estimated in order to address the research questions as defined in chapter one. The following chapter provides the results of the regression models' estimation and addresses issues for discussion of this exploratory study.

Chapter 4: Results and Data Analysis

Introduction

Using a multivariate regression model, this study examined the impact of limited English proficiency status and content-based performance on the Social Studies exit examinations in one of the state's largest school districts. For the purposes of extending research currently being performed today in the assessment field, this study attempts to extend the body of knowledge on possible educational inequity effects between ELL and Hispanic student populations versus members of other ethnic groups (and non-ELL) via the Social Studies assessments in the secondary school population of Texas.

The rest of this chapter is divided into the following: (1) Brief overview of the coding of available variables (e.g., Exposure is different in each model); (2) Discussion of Model 1 – Analysis of Social Studies score for eleventh-grade students; (3) Discussion of Model 2 – Analysis of Social Studies score for twelfth-grade students; and (4) Possible limitations of the study.

Coding Rationale

Because of the exploratory nature of this research, some regression results that are not significant at traditional levels are still reported and discussed.[1] In addition, the

[1] Traditionally, results are not considered statistically significant if the probability of finding them by chance exceeds 5 percent. Results that have a 5%to 10% probability of being achieved by chance are considered moderately significant. Results in the 10% to 15% range are referred to as approaching statistical significance.

regression models have good numbers of observations with an excellent fit. For a few of the variables contained within the model, the data provided by the district were not complete, due to what may stem from inadequate organizational effectiveness for data collection or disaggregated official repository procedures. This is as result of my being informed the standard data protocol required significant time (months of time) for the Coastal ISD consultancy staff to cull, synthesize, and compile the data requested. Ultimately, this research request required me to wait at least half a year before receiving any data and significant lag time after pre-paying the cost estimate for the data compilation.

For a student to be included in the regression model, the assessed student had to have received an "S" code on the TAKS assessment answer document. Both grade level models are the same with the exception of the 'Exposure' variable. For the eleventh-grade Model, the value is 0 (no retest), 1(one time retested), or 2 (retested twice – present in only a few cases). For the twelfth-grade Model, the value is 0, 1, 2, 3, or 4 which is the number of times a student retested or attempted to pass the exit exam. These "exposure" or re-test variable codes remained intact and estimated accordingly in each model.

It is important to note that although multiple collinearity is commonly a data problem, model re-specification is often a solution to address this data analytics issue. If several variables can be conceptualized as alternative indicators of the same construct,

one variable can be chosen to represent the construct in the predictive model. Perfect collinearity was in fact exhibited between the ESL variable and the LEP variable in the district's data. Therefore, I only included the LEP category in the regression model (instead of both the LEP and the ESL).

Lastly, to model the ethnicity correctly, I needed to create a set of mutually exclusive and collectively exhaustive indicators that represent all the ethnic groups present in the data set. Since there are five ethic groups, five indicator variables were created. Each ethnic group is represented by its own indicator variable (also called a 'Dummy' variable). However, a regression analysis requires that only such indicators are represented in the model (one less than the total number of categories). Since my research interest is on the Latino ethnic group, that category is not explicitly represented, i.e. included in the model. *Ceteris paribus*, the remaining ethnic groups (Native American, Asian American, African American, and White) are represented in the two models.

Model 1 – Analysis of Social Studies Score for Eleventh-Grade

After slight adjustments to the original conceptual model due to perfect collinearity considerations and specific coding considerations (as described above), the following is the actual model that I employed to estimate the performance of the eleventh-grade students in the Coastal Independent School District:

Student performance = $\beta_0 + \beta_1(\text{Gender})_1 + \beta_2(\text{Native American})_2 + \beta_3(\text{Asian American})_3 + \beta_4(\text{African American})_4 + \beta_5(\text{White})_5 + \beta_6(\text{Economic Disadvantaged})_6 + \beta_7(\text{LEP Status})_7 + \beta_8(\text{Duration in U.S. School})_8 + \beta_9(\text{Course U.S. History})_9 + \beta_{10}(\text{Course World History})_{10} + \beta_{11}(\text{Course World Geography})_{11} + \beta_{12}(\text{Course Economics})_{12} + \beta_{13}(\text{Course Government})_{13} + \beta_{14}(\text{Retesting Exposure})_{14} + \varepsilon$

Descriptive Statistics

There were a total of 8137 students available for examination of the secondary school exit level assessment of the 2004-2005 TAKS administration cycle at Coastal Independent School District. The table 4.0 below provides the basic descriptive statistics of all the variables used in the eleventh-grade model of test takers in Coastal ISD.

Table 4.0: Descriptive Statistics of Eleventh-Grade

	N	Minimum	Maximum	Mean	Std. Deviation
Social Studies Raw Score	8137	0	55	39.28	9.804
Economics course	8137	0	1	.03	.161
Government course	8137	0	1	.03	.164
U. S. History course	8137	0	1	.68	.465
World Geography course	8137	0	1	.03	.172
World History course	8137	0	1	.08	.272
Gender	8137	0	1	.54	.498
LEP	8137	0	1	.08	.271
Economic Disadvantage	8137	0	1	.66	.472
Native American	8137	0	1	.00	.019
Asian American	8137	0	1	.05	.216
African American	8137	0	1	.30	.457
White	8137	0	1	.15	.354
Exposure	8137	0	2	.31	.462
Duration	3044	1	19	10.14	3.814
Valid N	3044				

The average raw score on the Social Studies TAKS exam that an exit level eleventh-grade student achieved was 39.28 points with a large standard deviation of 9.8. The resultant raw score spectrum ranged from 0 to 55 points. There were 54% of female students taking the eleventh-grade exit level TAKS assessment.

Initially, the raw data for Exposure was only half complete. These records had simply not been filled in by district personnel. The number of missing values was rather large (5093). That prompted me to conclude that this might have been an administrative oversight. Thus, I coded any "missing value" as "0", to closely mirror my belief that the district had intended to place a zero there under my explicit instructions (as it was in my proposal for the data request) for "re-test" to be begin at "0" for success, and with retest equaling "1" (or "2" in the few case of retesting the TAKS twice). On average, eleventh-grade students had not been exposed to the test before in 69.5% of times *(see Table 4.1*).

Table 4.1: Exposure – Eleventh-Grade

		Frequency	Percent
Valid	No Retest	5652	69.5
	Retesting once	2482	30.5
	Retesting twice	3	.0
Total		**8137**	**100.0**

English language learner students, however, had retested for their TAKS examination in a somewhat equal fashion, in that 51.6% of the English language learners had not been previously exposed to the exit assessment, and 48.1% of the students had already undertaken the exit exam and failed it once before. This clearly contrasts the

patterns of the non-ELL sample population as less than one-third (29%) displayed evidence of retesting once before.

Table 4.2: Exposure by ELL Cross tabulation – Eleventh-Grade

		ELL		Total
		Non ELL	ELL	
Exposure	No Retest	5318	334	5652
	Retesting once	2171	311	2482
	Retesting twice	1	2	3
Total		**7490**	**647**	**8137**

Also, the model's Duration variable had only 3,044 observations out of 8,137 possible values. Therefore, the reader of these findings should be aware that effectively I had less than half of observations for this predictor which is still large but it indicates that most of the data are lost (5093 student records lacked any information as to when the student enrolled in a US school). A descriptive statistical analysis of the Duration variable indicates that almost 10 years (10.14) is the average number of years spent in a school for this sample, with the highest value of 13 years (12.3%), that an eleventh-grade student has been exposed to a U.S. schooling environment *(see Table 4.0 above).*

A cross-tabulation of the Duration variable versus limited English proficient status indicates that 17.4% of the English language learners have been in a U.S.-based academic environment for only 3 years before taking the TAKS exit exam. The next highest, 14.3% of the English language learners had only been in U.S. schools for 2 years before being subjected to the exit examination. The data confirms my expectations as

most the non-ELL students (60.1% of non-ELL students) have been in an academic environment in the U.S. for 12 or 13 years, meaning that more than likely these students were exposed to kindergarten and twelve years of schooling in the United States.

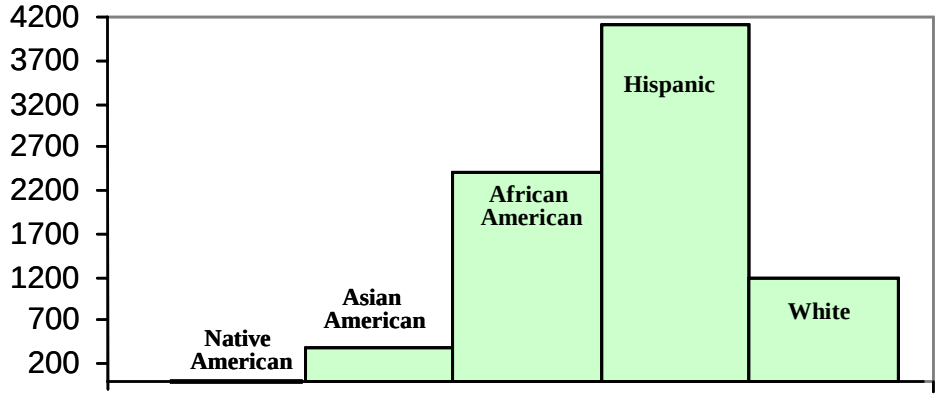
The descriptive statistics showed that the majority of the students in Coastal ISD are either Hispanic or African American. The distribution of Ethnicity from highest to lowest frequency shows: 50.6% of the students belong to the Hispanic ethnic category, followed by 29.7% of the African American students, 14.7% White/Anglo, 4.9% Asian or Pacific Islander, and only 3 students (or 0.01%) in the Native American ethnicity group *(see Table 4.3)*. These demographics are not surprising given that the school district is in one the state's largest metropolitan areas.

Table 4.3: Ethnicity – Eleventh-Grade

	Frequency	Percent
Hispanic	4120	50.6
African American	2420	29.7
White, not of Hispanic origin	1195	14.7
Asian or Pacific Islander	399	4.9
American Indian or Alaskan Native	3	.01
Total	**8137**	**100.0**

The following figure from a descriptive statistics procedure on the frequencies of selected variables shows how prevalent the Hispanic student population is at 4,120 followed by African Americans at 2,420 along with data for all the other ethnicities.

Figure 4.0: Frequency of Population by Ethnicity in Coastal ISD – Eleventh-Grade



As mentioned previously, the economic disadvantaged variable was of great interest due to historical trends of the ELL population and as frequency statistics indicate 5408 (or 66.5%) of Coastal ISD's eleventh-grade level students taking the Social Studies TAKS assessment in April 2005 experienced some form of economic disadvantage (*see Table 4.4*). The data indicates that over half (54.3%) of the district's students qualified for the federal government's free lunch or reduced price school meal program for impoverished children. This is important because empirical evidence suggests that socioeconomic factors can help explain the generally low educational achievement of Latino language-minority students. Overall, Latino language-minority students have lower socioeconomic status than do other language minority students (McArthur, 1993).

Table 4.4: Economic Disadvantage – Eleventh-Grade

	Frequency	Percent
Not identified as economic disadvantaged	2729	33.5
Eligible for free lunch	3626	44.6
Eligible for reduced price meals	790	9.7
Other economic disadvantages	992	12.2
Total	**8137**	**100.0**

Predictive Statistics

The effective sample size used for the regression analysis of the eleventh-grade Social Studies TAKS performance is equal to 3044. The average Social Studies "Raw Score" in the sample is 36.48 points. The spread of the scores is wide since the standard deviation is about 10.3 points indicating that there is great variability within the students' resultant Raw scores for this exit exam *(see table 4.5)*. The data has practically the same characteristics as the complete data set of 8137 observations.

Table 4.5: Descriptive Statistics of Variables in Eleventh-Grade Regression model

	Mean	Std. Deviation	N
Social Studies Raw Score	36.48	10.302	3044
Economics course	.03	.181	3044
Government course	.03	.176	3044
U S History course	.73	.443	3044
World Geography course	.04	.200	3044
World History course	.11	.319	3044
Gender	.52	.499	3044
LEP	.21	.405	3044
Economic Disadvantage	.86	.343	3044
Native American	.00	.026	3044
Asian American	.07	.254	3044
African American	.02	.152	3044
White	.02	.149	3044
Exposure	.33	.470	3044
Duration	10.14	3.814	3044

The estimated Social Studies Score regression model is presented in table 4.6 below. It provides the estimates of beta coefficients, their significance, as well as the

typical 95% confidence intervals for each of the estimated betas. The *F* statistics for the model is F(14, 3029) = 132.02 (with its *p*-value of 0.000) indicating that this model is highly significant and can explain a significant part of the variation in the raw score of the Social Studies exit-level TAKS assessment.

Table 4.6: Regression Analysis for Social Studies Raw Score – Eleventh-Grade

					95% Confidence Interval for B	
	B	**Std. Error**	**t**	**Sig.**	Lower Bound	Upper Bound
(Constant)	45.519	.780	58.384	.000	43.991	47.048
Economics course	1.528	1.091	1.400	.161	-.611	3.666
Government course	-4.622	1.126	-4.104	.000	-6.830	-2.414
U.S. History course	-3.792	.358	-10.580	.000	-4.495	-3.089
World Geography course	-2.836	.761	-3.728	.000	-4.328	-1.344
World History course	-4.951	.496	-9.988	.000	-5.922	-3.979
Gender	-2.020	.298	-6.787	.000	-2.604	-1.437
LEP	-10.337	.441	-23.424	.000	-11.202	-9.472
Economic Disadvantage	-.625	.463	-1.350	.177	-1.532	.283
Native American	4.013	5.785	.694	.488	-7.330	15.355
Asian American	2.740	.628	4.363	.000	1.509	3.971
African American	-.719	.989	-.727	.467	-2.659	1.221
White	4.028	1.046	3.849	.000	1.976	6.079
Exposure	-5.204	.325	-15.994	.000	-5.842	-4.566
Duration	-.030	.047	-.636	.525	-.123	.063
R^2 = 0.379		F = 132.018		N = 3044		

At an alpha level of .05, the results of the regression analysis (*see Table 4.6 above*) confirm my expectations regarding Hispanic students. As stated earlier with the 2003 and 2004 performance differentials between Coastal ISD's English language learners and the state's English language learners, I expected to see some measurable difference in the Social Studies raw scores of their non-LEP counterparts. The ethnic dummy variables of the White group and of the Asian American group were significant

which implies that there are significant differences in the Social Studies raw scores between Hispanic students and students from either of the two ethnic groups. As expected based on my previous secondary level TAKS research (Sanchez, 2006), White students exhibit a Social Studies score roughly 4.0 points higher than the average score of Hispanic students. The Asian Americans' score was 2.7 points higher than the average score of Hispanic students. Statistically there is not difference in performance between Hispanic students and the 'Native American' group or the 'African American' group.

The effect of gender as illustrated by the estimated model of the Social Studies raw score was very significant and illustrated a difference between female and male students who took the assessment in April 2005, the 'Exit-level April retest' for that year's administration cycle. The estimates in the Social Studies raw score model for eleventh-graders indicated that female students performed 2.0 points below the male students on this TAKS exit exam.

Two other factors that we used in the model were of more interest to me. The limited English proficient variable (defined as dummy variable with 1 for an ELL student classified as 'LEP') was a highly significant predictor of the Social Studies score. English language learners had significantly lower Social Studies score than non-ELL students by 10.3 points. This indicates that being designated as a limited English proficient student has a significant effect on the result that the student achieves on the Social Studies exam (the statistic for the coefficient was the highest among the variables

used). With a 95% confidence level, the Social Studies score for an ELL student is between 11.2 and 9.4 lower than the score attained by a non-ELL student. That is practically an enormous difference in performance which merits significant attention.

The LEP variable served as a rough proxy for ELL's linguistic competency (varying level of language variable) to analyze the difference between an ELL student and non-ELL student, at the district level since it might illuminate the performance gap that this group of students is facing currently in Texas educational environment. Due to the fact that Coastal ISD is such a large district, a certain degree of variability amongst LEP students is assumed and understood that not all LEP's are Hispanic or Latino, as the LEP designation involves a spectrum of ethnicities. None of the current assessment reporting indices at a state or local level 'subdivide' or collapse the LEP classification by ethnic subcategories preventing me from comparing the Hispanic ELLs against the White ELL students. Having said this, the White category was analyzed for rough comparisons, as it is highly probable that an English-dominant categorical group such as the White student population would score the better on the Social Studies TAKS exam than a non-native English speaker or even a formerly English as a Second Language (ESL) designated ELL student. This is due to the TAKS' heavy English language complexity in its design with an emphasis on political terms and historically based reading passages, definitions, amongst others.

Furthermore, for every additional unit of change in the Exposure variable, the raw score decrease by 5.2 points, meaning that for every time that a student re-tests, his or her scores decrease by substantial 5.2 points on the average. The finding is a surprising outcome since 're-testing' is designed as another chance to overcome the exit exam obstacle some students experienced. This could be occurring due to a multitude of reasons.

This somewhat surprising result could be due to the fact that the TEA publicly states that they design the TAKS exam to be more difficult for each successive time that a student retakes it in order to be 'fair' and compensate for prior exposure. However, this makes no sense to me, as the various combinations of the test design are irrelevant if the student is unable to understand the language of the text in the first place. These results may indicate that the exam was too difficult or flawed in its design, and therefore not appropriate for the ELL to perform well even after successive attempts. Or these results could conceivably add further evidence to the argument that the by the time the ELL student reaches exit-level status in high school, this student has already 'disappeared' from the system (Valenzuela, Fuller, Vasquez-Heilig, 2006), and there is even less data available on the 'retester' who may no longer be a part of the CISD testing population.

Interestingly with respect to the content component of the CCSSE model, having had content exposure via completed coursework in all of content areas except that of Economics, seems to exhibit statistically significant effects on Social Studies TAKS

assessment performance. The data illustrates that having taken a course in World History decreases the student's score by 4.9 points, a course in U.S. History decreases it by 3.8 points, and World Geography decreases it by 2.8 points. Moreover, the findings for the content-related variables suggests that perhaps there is a mismatch in the actual content that the student's are taking from that which is being tested on the exit assessment.

It is feasible that the assessment is designed rather poorly and is ineffectively capturing what the students' know or is written in an inordinately linguistically-complex fashion that a student cannot achieve a reasonable level of performance, no matter how many courses the student takes in the content area. Perhaps the content covered was so far removed from the student's cognitive abilities in terms of actual comprehension due to language-related confounding factors (Abedi, 2003), or even from a memory recall standpoint resulting from when the student actually took the course, that even sequencing issues may be presenting themselves as contributing factors that are unable to be explained by this model. For instance, some of the topics (such as pre-Reconstruction History) tested within the objectives were covered during the eighth grade, with the student now being tested on this information after several years have passed from instructional exposure to the material (Salinas, 2006b). Thus, the need for in-depth study of instructional practices and actual content covered within the coursework that students' received credit for at a localized level is immensely apparent, as does future research on the design and construct of the Social Studies assessment.

Variables that may seem hard to interpret, such as 'Exposure' (the number of times the student has taken the test) and coursework content indicators are in effect variables which are important contributors to the performance. It is important to keep in mind that the TAKS accountability system inherently states that the system is supposed to be fair for all students. However, by making the next version of the test more difficult and at the same time lowering the 'Met Standard' level seems questionable. That is, for subsequent administrations, downward shifts may occur in the number of items (raw score) needed to achieve the 'Met Standard' and ultimately exit from within this complex high-stakes landscape that ELL students must navigate successfully to achieve a diploma.

Since the results of eleventh-grade exit assessments under review illustrate the 'LEP' predictor to be the one component that has the strongest influence on predicting what the student's score will be on the exit assessments, it is important to direct further resources into the study of this component in a child's sociocultural/linguistic make-up. Students designated as ELL are extremely vulnerable to the TAKS exit exam as this evidence signals that they are not performing as well as other students, who do not have a sociolingusitic disadvantage. Thus, this evidence signals ELL students are not performing as well as non-ELL students when it comes to high school exit exams and as such we must gather further empirical evidence such as this in order to be a voice on behalf of these children caught in the middle of the crossroads of the Texas assessment landscape.

It is with this in mind, that I analyze a second cohort of students at Coastal Independent School District. The twelve-grade sample of the exit exam population is ultimately, the group with the most to lose in the high-stakes landscape of Texas. After this round of assessments, if an ELL student does not pass the TAKS exit exam, then she will forever be without a high school diploma as part of her educational credentials, despite fulfilling all other academic requisites.

Model 2 – Analysis of Social Studies Score for Twelfth-Grade

Similarly to Model 1, adjustments to the original conceptual model were made (as described above in the "Coding Rationale" section). The following is the actual model that I employed to estimate the performance of the twelfth-grade students at Coastal ISD:

$$\text{Student performance} = \beta_0 + \beta_1(\text{Gender})_1 + \beta_2(\text{Native American})_2 + \beta_3(\text{Asian American})_3 + \beta_4(\text{African American})_4 + \beta_5(\text{White})_5 + \beta_6(\text{Economic Disadvantaged})_6 + \beta_7(\text{LEP Status})_7 + \beta_8(\text{Duration in U.S. School})_8 + \beta_9(\text{Course U.S. History})_9 + \beta_{10}(\text{Course World History})_{10} + \beta_{11}(\text{Course World Geography})_{11} + \beta_{12}(\text{Course Economics})_{12} + \beta_{13}(\text{Course Government})_{13} + \beta_{14}(\text{Retesting Exposure})_{14} + \varepsilon$$

Descriptive Statistics

The following table *(Table 4.7)* has the basic descriptive statistics of the all variables used in the model 2 as defined above.

Table 4.7: Descriptive Statistics of Twelfth-Grade

	N	Minimum	Maximum	Mean	Std. Deviation
Social Studies Raw Score	7913	0	55	38.51	9.422
Economics course	7913	0	1	.79	.411
Government course	7913	0	1	.74	.436
U.S. History course	7913	0	1	.11	.310
World Geography course	7913	0	1	.02	.146
World History course	7913	0	1	.05	.218
Gender	7913	0	1	.55	.498
Economic Disadvantage	7913	0	1	.64	.479
LEP	7913	0	1	.06	.241
Native American	7913	0	1	.00	.025
Asian American	7913	0	1	.04	.206
African American	7913	0	1	.31	.462
White	7913	0	1	.14	.348
Duration	2550	0	19	9.91	3.779
Exposure	7913	0	4	.78	1.244
Valid N	2550				

A descriptive statistics analysis of the Duration variable indicates that the average number of years that a twelve grade student has been exposed to a U.S. schooling environment is almost 10 years (9.91). For the Duration variable, I have only 2550 valid values out of 7913 possible records, meaning I only have about 35% of the data showing up in this category. Therefore, effectively I only have 2550 observations for the regression analysis.

This could be due to a multitude of reasons, for example the district may not have historically been keeping track of the exact dates that all students enrolled in a U.S. school in a uniform fashion, and thus may not necessarily have access to that data for all

students. It could mean, that perhaps those with a date for entry into U.S. schools are no longer classified as LEP since the goal of Texas schools is to mainstream these students out of this 'designation' after three years. Or it could signify that 35% of that cohort represents the number of ELL students that have successfully navigated through the system to attain 'senior' status, and beat the odds against disappearing from the Texas educational system (Valenzuela, Fuller, Vasquez-Heilig, 2006). It could be that there is even less evidence or available data (in the form of each student record) on those officially classified as 'LEP' as they may no longer even be classified as such in Coastal Independent School District, and thus have no date of entry in their student record. Thus, further investigation is needed to clarify why I only received 2550 observations.

The average raw score that an exit level twelfth-grade student achieved was 38.51 points with a large standard deviation of 9.8. The score spectrum ranged from 0 to 55 points for the twelfth-grade Social Studies TAKS exam. There were 55% of female and 45% male students taking the twelfth-grade exit TAKS assessment examination.

Most students in the twelve-grade population (64.2%) showed no evidence of re-testing meaning that they successfully passed. Those having taken the exam already 14.1% took the exam once (possibly due to failure in eleventh-grade) and 8.9% were 're-testing twice' (meaning, this would be their third try at passing the exit exam). Interestingly the next highest category was those re-testing for a fourth time in the twelve-grade (7.1%). This illustrates that these students were perhaps sitting for this

exam at least 5 times (in that theoretically they would have taken the TAKS assessment in the eleventh-grade, then as a twelve grade student taken it a fourth time).

Table 4.8: Exposure – Twelfth-Grade

	Frequency	Percent
No Retest	5079	64.2
Retesting once	1112	14.1
Restesting twice	704	8.9
Restesting third time	459	5.8
Restesting fourth time	559	7.1
Total	**7913**	**100.0**

A cross-tabulation of Exposure by LEP status (Table 4.9) illustrates that most ELL students were retesting for a fourth time (157 students or 2% of the sample ELL population). In the grade twelve, 63.4% (5017 out of 7421) of non-ELL students do not re-test or require further exposure to the TAKS test as opposed to ELL student performance rates which indicate that the majority of ELLs have much higher levels of exposure to the assessment process in Texas' accountability system.

Table 4.9: Exposure by LEP Cross-tabulation

		ELL		Total
		Non-ELL	ELL	
Exposure	No Retest	5017	62	5079
	Retesting once	1043	69	1112
	Restesting twice	610	94	704
	Restesting third time	349	110	459
	Restesting fourth time	402	157	559
Total		7421	492	7913

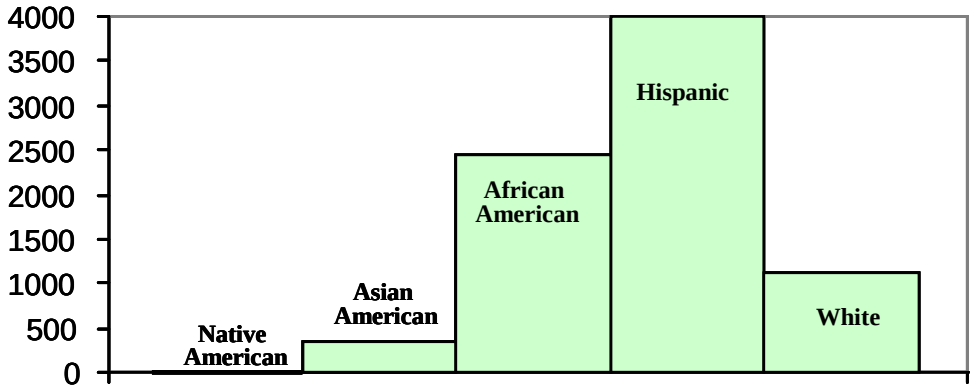
The descriptive statistics for the ethnicity of the twelve grade students *(Table 4.10)* showed that the majority of the students are either Hispanic or African American, with 50.6% of the students belonging to the Hispanic ethnic category, followed by 30.8% in the African American ethnicity, then 14.1% White/Anglo, 4.5% Asian American or Pacific Islander, rounded out by a minimal 0.1% belonging to the Native American ethnic group.

Table 4.10: Ethnicity – Twelfth-Grade

	Frequency	Percent
Hispanic	4003	50.6
African American	2439	30.8
White, not of Hispanic origin	1113	14.1
Asian or Pacific Islander	353	4.5
American Indian or Alaskan Native	5	.1
Total	**7913**	**100.0**

The table 4.10 above shows how prevalent the Hispanic student population is at 4,003 followed by African Americans at 2,439 in the Coastal district along with data for all the other ethnicities. Figure 4.10 below presents those frequencies on a histogram.

Figure 4.10: Frequency of Population by Ethnicity in Coastal ISD – Twelfth-Grade



There were a total of 7,913 twelve-grade students who took the March 2004 exit level TAKS test. The economically disadvantaged category included 5101 (for a total of 64.5%) of the student population (*see Table 4.11*). As mentioned previously, the economic disadvantaged variable was of great interest due to historical trends for ELL students with respect to Texas accountability system. Over half (51.8%) of the students qualified for the federal government's free lunch or reduced-price meal program for impoverished students.

Table 4.11: Economic Disadvantage – Twelfth-Grade

	Frequency	Percent
Not identified as economic disadvantaged	2812	35.5
Eligible for free lunch	3268	41.3
Eligible for reduced price meals	832	10.5
Other economic disadvantages	1001	12.7
Total	**7913**	**100.0**

Predictive Statistics

The effective sample size used for the regression analysis of the twelfth-grade Social Studies TAKS performance is equal to 2550. The average Social Studies "Raw Score" in the sample is 35.36 points. The spread of the scores is wide since the standard deviation is 9.4 points indicating that there is great variability within the students' resultant raw scores for this exit exam *(see table 4.12)*. The data have practically the same characteristics as the complete data set of 7913 observations.

Table 4.12: Descriptive Statistics of Variables in Twelfth-Grade Regression model

	Mean	Std. Deviation	N
Social Studies Raw Score	35.36	9.472	2550
Economics course	.81	.389	2550
Government course	.79	.408	2550
U.S. History course	.16	.368	2550
World Geography course	.03	.165	2550
World History course	.06	.245	2550
Gender	.53	.499	2550
Economic Disadvantage	.87	.341	2550
LEP	.18	.387	2550
Native American	.00	.020	2550
Asian American	.07	.252	2550
African American	.02	.152	2550
White	.02	.132	2550
Duration	9.91	3.779	2550
Exposure	1.12	1.421	2550

The estimated Social Studies Score regression model is presented in table 4.13 below. It provides the estimates of beta coefficients, their significance, as well as the typical 95% confidence intervals for each of the estimated betas. The F statistics for the model is F(14, 2535) = 123.294 (with its *p*-value of 0.000) indicating that this model is highly significant and can explain a significant part of the variation in the raw score of the Social Studies TAKS assessment.

Table 4.13: Regression Analysis for Social Studies Raw Score – Twelfth-Grade

					95% Confidence Interval for B	
	B	**Std. Error**	**T**	**Sig.**	Lower Bound	Upper Bound
(Constant)	42.752	.748	57.187	.000	41.286	44.218
Economics	-.069	.532	-.130	.896	-1.113	.974
Government	-3.347	.508	-6.583	.000	-4.344	-2.350
U.S History	-2.122	.413	-5.143	.000	-2.932	-1.313
World Geography	-.077	.887	-.087	.931	-1.816	1.662
World History	-1.202	.607	-1.978	.048	-2.393	-.011
Gender	-1.958	.294	-6.661	.000	-2.534	-1.381
Eco Disadvantage	-.614	.446	-1.377	.169	-1.489	.261
LEP	-5.204	.455	-11.445	.000	-6.096	-4.313
Native American	5.619	7.342	.765	.444	-8.778	20.017
Asian American	3.516	.614	5.727	.000	2.312	4.720
African American	1.409	.975	1.446	.148	-.502	3.320
White	4.765	1.146	4.157	.000	2.517	7.013
Duration	.071	.044	1.619	.105	-.015	.156
Exposure	-2.519	.120	-20.975	.000	-2.755	-2.284
R^2 = .405		N = 2550		F = 123.294		

At an alpha level of .05, the results of the regression analysis (*see Table 4.13 above*) confirm my expectations regarding Hispanic students. This researcher had expected to find that the White ethnic category would perform noticeably better than the Hispanic students with a strong level of significance on the Social Studies assessment. All of the ethnic dummy variables, except the Native American, were significant which implies that there are significant differences in the Social Studies raw scores between Hispanic students and students from those ethnic groups. White students scored 4.8 points above that of Hispanics students. Asian American students exhibited a Social Studies score higher than Hispanic students by a little over 3.5 points. Although typically

we report significance at a 5% alpha level, African Americans scored 2.5 points above that of Hispanics at an alpha level of 15 percent significance levels.

The effect of gender was very significant and illustrated a difference between females and males who took the assessment in March 2004. The Social Studies raw score indicated that female students performed almost 2 points below the male students on this TAKS exit exam. With a 95% confidence level, the Social Studies score for a female student is between 2.6 and 1.4 lower than the score attained by a male student.

Two other factors specifically utilized in the model were of more interest to me, that of ELL/LEP designation and Duration. The limited English proficient variable (defined as dummy variable with 1 being a student with 'LEP' designation) was again a highly significant predictor of the Social Studies score for the high school senior cohort. English language learners had significantly lower Social Studies score than non-ELL students by 5.2 points. This indicates that being classified as a limited English proficient student has a significant effect on the raw score that the student achieves on the Social Studies exit-level exam. With a 95% confidence level, the Social Studies score for an ELL student is between 6.1 and 4.3 lower than the score attained by a non-ELL student. Moreover, the Duration effect as measured by the number of years that the student has been in U.S. schools confirmed my expectations and proved to be statistically significant at 10% alpha level, demonstrating that for every additional year the child is in a schooling environment, his/her score is increased by 0.71, or almost 1 point on the exit exam.

Interestingly, the exposure to the TAKS assessment as gauged by students' retesting experiences as exhibited on resultant Social Studies scores was statistically significant indicating that their score was lowered by 2.5 points with each successive attempt at taking the exam. This data shows that the student's performance is lower than it was the previous time the student took the assessment. Since the coefficient of the duration variable is negative 2.5, the implications of this evidence are enormously critical. If the goal is to educate the student and to motivate the students into performing better by giving him/her a second chance to be successful in terms of passing the test, then this evidence shows that in effect, the TAKS system of accountability is failing them tremendously.

First and foremost, the immediate effect of failing a test for any student is that s/he is devastated and may experience significant personal difficulty and now has intrinsic motivation to avoid having to take the test again. Secondly, the student may somehow be dropped out of the statewide educational system (Valenzuela, Fuller, Vasqez-Heilig, 2006) as well as out of the district's population of ELL students. Another effect is that the system is effectively penalizing the student by making the next version of the test more difficult to pass by moving the 'Met Standard' or passing rates for the resultant score. That is according to the TEA, for subsequent administrations shifts may occur in the number of items (raw score) needed to achieve Met Standard and Commended Performance. For instance in the spring 2004 TAKS testing cycle, the TEA

reported that students in grade 11 were required to pass 22 out of 55 questions. Any combination of the objectives tested in the exam that sums up to 22 passing questions out of the total 55 is sufficient (see *Table 4.14*).

Table 4.14: Number of Items Tested – 2004

Objective	**Grade 8 (1 SEM)**	**Grade 10 (1 SEM)**	**Grade 11 (2 SEM)**
1: Issues & Events in U.S. History	13	7	13
2: Geographic Influences on History	6	12	9
3: Economic & Social Influences on History	9	7	13
4: Political Influences on History	12	12	9
5: Critical-Thinking Skills	8	12	11
Total Number of Items	**48**	**50**	**55**

Source: TEA, 2006d

Moreover, with the high-stakes design of the TAKS accountability system, the state incorporated some degree of flexibility at the margins with standard error of measurement exceptions to the student passing standards passed by the State Board of Education. For 2004, students at the margins of performance could be moved up – students at one standard error of measurement below the panel recommendation for grades 8 and 10, and two standard errors in grade 11. However, had students been subjected to the Social Studies TAKS test as tenth graders, they were required to pass 27 out of 50 questions which had a lesser concentration of U.S. History and the Economics course content. Aside from the fact that there are certain field test questions which are ultimately not even factored into the student's final score, the focus or importance placed

on certain subject areas (via content objectives), changes with each successive year that the child sits for the TAKS assessment. This places immense pressure on an ELL student who may be experiencing the latent effects of "pull out" programs who may not even be receiving the same opportunity to learn via incongruent content exposure or coursework completion.

Also having completed coursework in the content areas seemed to be statistically significant to performance on the Social Studies assessment, as having completed a course decreases the student's score as compared to those who did not have prior coursework or documented evidence of completion in that subject. The regression analysis shows that having completed coursework in the content area of U.S. History decreases the student's score by 2.1 points, as compared to those who did not have prior coursework in U.S. History.

The regression analysis also shows that having completed coursework in the content area of World History decreases the student's score by 1.2 points, as compared to those who did not have prior coursework in World History. Furthermore, having completed coursework in the content area of World Geography decreases the student's score by 0.7 points, almost 1 point, as compared to those who did not have prior coursework in World Geography (but it is highly insignificant). Similarly having completed coursework in Economics is also insignificant. In the content area of Government, the score decreases by 3.3 points, as compared to those students who did

not have complete a course in Government. There is no clear answer for why this is content coursework mismatch is occurring. As stated earlier with the results in the eleventh grade model, it could be due to a variety of factors.

Also, there is no clear way of knowing whether the ELL student has taken all of the content courses that their English speaking peer has in the same sequence when s/he is being compelled to sit for the exit exam for the first time as a sophomore student. The ELL student may have been pulled into an 'English for Speakers of Other Languages' course instead of being in a World Geography course during the ninth grade under the typical sequencing, so that when he first sits for Social Studies exit exam in the tenth-grade that student may not necessarily be aptly prepared for the exam. This may cause additional stresses and lead to failure, and therefore the student would be more prone to become a re-tester.

Further, typically non-ELL students take American History in the eighth grade, but may not necessarily have the ability to have total memory recall by the time the student takes the TAKS test during the eleventh-grade which is heavily weighted with U.S. History (13) items. This content-based incongruence should be further analyzed in greater detail to develop better realignment of course sequencing with respect to when the student sits for the exam. This is especially critical for English language learners because they may not be taking the subject matter courses at the same way or even in the same sequence as their native English-speaking counterparts.

Since the results of twelve grade exit assessments under review illustrate the LEP predictor to be the one component that has the strongest influence on predicting what the student's score will be on the exit assessments, it is important to direct further resources into the study of this component in a child's sociocultural/linguistic make-up. Thus, children designated as ELL/LEP are extremely vulnerable to the TAKS exit exam as this evidence signals that they are not performing as well as other children, who are not designated as having a sociolingusitic disadvantage on Texas' high school exit exams.

Discussion

There are certain variables that the CCSSE model would benefit from but they were not feasible as these are not currently captured nor reported to the state's education agency (TEA). They are: the students' migratory patterns, interrupted schooling experience, or prior assessments of linguistic capability as measured by other assessments. Linguistic test accommodations for exit-level examinations, test preparation or teacher-led training of test taking strategies and linguistic modifications (Abedi, & Hejri, 2004) for ELLs may prove to be predictors of success on the TAKS exam as they have proven to be for the NAEP exam.

Also, extensive data on each of the student's second language acquisition preparatory coursework and any instructional 'pull-out' interventions be beneficial, if available, in order to identify potential effective interventions regarding content and

conceptual understanding of the material being tested on the exit assessments. In a pull-out ESL program, students spend a majority of their day in grade-level classrooms with the ESL instructor removing them from their regular classroom for special English language instruction. The instructional intervention strategy may range from three times a week to a daily period of 45 to 60 minutes, generally focusing on grammar and social communication skills (Chamot & Stewart-Manzanares, 1985). This may have allowed for a possible examination of the relationship between English coursework history and the resultant score in order to ascertain how this variable influenced performance on the TAKS exam.

Further in terms of extending this research in the future, the number of "English" subject matter courses taken by ELL students including, 'English for speakers of other languages' may be beneficial to gauge language competency levels since the state offers credit for these courses in lieu of English I and English II to fulfill legislative requirements. The state of Texas requires school districts to provide English as a Second or Other Language (ESOL) programs to students who speak a language other than English and who are considered English language learners.

Limitations of the Study

The study reported here is exploratory and, as indicated above, is intended to lay the groundwork for larger scale efforts. It is an empirical study of a sample of English language learners or LEP students that are currently enrolled in the secondary school

population of one of the largest school districts in Texas. There were both time constraints and fiscal limitations to the design and data collection of the study, which may introduce confounding factors.

While the design of this body of research might be strengthened with perspectives from teaching staff and students – the fiscal limitations of this small project require the need for further grant-funded research and support in order to poll all subject segments. First, I was required to pay several hundred dollars for the technical manpower dedicated to pulling the performance and prior coursework of the content dataset together. Secondly, it would be difficult for me, as an individual researcher, to conduct teacher observations in each one of the 20+ high schools in the entire district and have a 'guaranteed' opportunity to interview a random selection of ELL students upon completing the TAKS exam in order to ascertain other variables that might be possibly contributing to individual performance. Thus, I had selected an experimental design calling for an a *posteriori* validity (Weir, 2005) approach using statistical analysis on TAKS assessment data already being gathered. Derived from Latin term meaning 'what comes after,' *a posteriori* test validation are procedures used to establish what an exam actually measures after it has been developed and may include the use of statistical procedures or the soliciting of expert opinion (Davies et al., 1999, p. 9)

Furthermore, this study was designed only to be an exploratory search for evidence that may or may not support inferences from test scores that are sociolinguistic

and culturally valid and free from potential test biases such as cultural and background knowledge (Bachman, 1990). This body of work concedes that further more detailed analyses are required to better understand their performance and those of their non-ELL counterparts in the public high schools of Texas with respect to: i) language based factors affecting performance; ii) content appropriate constructs; and ii) conceptual understanding. Because of these limitations, generalizations from the results must be made with caution.

The following chapter offers an introductory discussion of the findings, second language acquisition and culturally relevant instructional recommendations for practitioners, education policy recommendations, macro level implications of this study, and concludes the dissertation.

Chapter 5: Implications, Recommendations, Conclusion

Introduction

As of the year 2005, an astounding figure of 1.9 million of Texas' students (45%) is reported as being of Latino ethnicity (TEA, 2007). Thus, there is a clear and compelling need for research on Latino and ELL students in secondary education at various school districts, big and small, urban or rural across the large state of Texas to ascertain and isolate factors driving their performance rates in today's assessment landscape. This research indicates that ELL students, who have yet to reach a baseline level of English language proficiency will not perform well on assessment measures written in English, regardless of the subject being tested as evidenced by this analysis on Social Studies, as well as on the Math and English Language Arts (Sanchez, 2006) assessments. Until ELL students have established a baseline level of English language proficiency, it is inappropriate to assess secondary ELL students and school district performance using English-based achievement tests such as the TAKS tests.

While this study has been focused on examining performance scores for ELL and Latino students on the Social Studies exit assessments during one TAKS administration cycle for Texas' children, it is important to note that there is a very limited amount, if any at all, of research in the area of how limited English proficiency is expressed through the high-stakes testing landscape with respect to content and how some educators have

capitalized on this knowledge successfully to empower their LEP students to pass the exit exams and/or graduate from high school. This empirical study sheds light on the poor performance of ELLs. It is evident that not only may they not possess the language of the assessment and the necessary linguistic accommodations (Abedi, Hofstetter, Baker, & Lord, 2001), but they simply may not have the content knowledge necessary to do well. Test scores for ELL students may actually reflect true gaps in knowledge, and thus their performance on content assessments may be valid indicators of their content knowledge.

Thus, the need for further research in this area is clearly evident as poor TAKS performance may be a result of these student's duration in schools, academic exposure to content, or any number other factors. This potentially impacts how interventions for English language learners should be selected. This body of work has many implications for both research and practice communities of i) secondary school teachers, ii) university departments of Curriculum and Instruction, Educational Administration and Leadership, iii) district Curriculum Directors, and iv) education policymakers.

The conceptual framework (*see Appendix*) of the CCSSE model is intended to not simply be a concept that is inculcated in theory alone – it is instead a model that seeks to be somewhat enlightening to public school practitioners who distinctly have a need to understand the historical construction of contemporary schooling and the theory of critical pedagogy. It is an attempt to provide tangible pedagogical practices for critical pedagogy and for the development of critical educators in order to combat the deleterious

effects of the exit-exams. Hence, it provides a certain practicality and usefulness to secondary-school practitioners as they are now able to understand the effects of some of the component variables that are ultimately expressed in the ELL student's TAKS performance ratings and could uniquely customize their craft with this understanding. It is with this in mind, that instructional and policy recommendations are hereby outlined in an effort to provide immediate strategies for those managing the murky environment that is Texas' accountability system for their ELL student population.

Instructional Recommendations

Instruction that empowers students intellectually, socially, and politically by using cultural referents to impart knowledge, skills, and attitudes can be defined as 'culturally relevant teaching" (Ladson-Billings, 1997, p. 18) and expressed in the socially mediated experience that is social learning theory. Through a critical perspective, culturally relevant practices or models in education which can be translated for use with ELL students. The notion of culturally relevant instruction incorporates a view of knowledge as an ever-changing cycle of learning that is re-created [like Piaget], recycled and shared with others. Culturally relevant concepts of knowledge differ from *assimilationist* contentions in the former point, in addition to the fact that knowledge is perceived critically and the teacher is not only passionate about the content, but also engages actively in helping the students develop necessary skills.

Ladson-Billings' (1997) social learning instructional paradigm shows how a teacher views excellence as a complex standard that may involves some presuppositions, but also values and acknowledges student diversity and individual differences in learning. A standard of excellence, where despite the instructional or curriculum material, teachers who employ culturally relevant principles are able to transcend boundaries and reach children successfully with common tenets in their manner of teaching. Amongst others, these common tenets include: i) student's real-life experiences or "culture" are imported into curriculum and legitimized to bridge comprehension gaps; ii) both teacher and student are actively engaged in fighting against status quo of low expectations for them academically and socially; iii) teachers are cognizant that they must be politically active in rejecting cultural-deficit explanations of their students' low achievement levels and instead lean towards models of cultural excellence. She establishes the concept that cultural referents are not merely after-thoughts or "extra filler" used to bridge the gaps in comprehension of the dominant culture, that "they are aspects of the curriculum in their own right" (Ladson-Billings, 1997, p.18). For instance, her research describes how a culturally relevant teacher might relate the importance of the U.S. Constitution to a child by initiating a discussion on the articles of incorporation for an ethnic civic association.

Culturally relevant instructors interweave institution building and formulation of ideals within a discussion about members of the student's community who also take an active role in their community and thus sets the stage for similar parallels to be drawn within the student's learning experience. Further, it is this researcher's contention that as

quickly as a skilled teacher can morph her lessons around a learner's background and language, large-scale assessment development must also expeditiously enact and mirror this praxis in the name of equitable education for all students. Therefore, this research positions teachers as 'agents' who can develop learning experiences for and with their pupils to break through the oppressive and *colonizing* practices that may be expressed in our current accountability system, which students of color and language-minority learners face in our educational settings.

The aforementioned scholarship both here and in Chapter 2 on techniques for teaching our most vulnerable students and the key players in educational reform makes it clear that students must be taught with culturally relevant methods, with more opportunities to value their culture, and with a teacher-centered caring view that is free of deficit theory assumptions. These educators exemplify the need for similar instructors who hold a credo of high student achievement expectation coupled with mutual respect for their non-English dominant students. They are exemplars, who embody a culturally relevant approach where students' expectations are directly tied to (their teacher's) views about them, the value of their ethnic background, and more importantly, their intertwined chances for success in today's educational landscape.

In addition to content preparation, this component of teacher quality may be a critical ingredient in the recipe for successful performance in the assessment landscape of one of the most vulnerable segments of our student population, the English language

learner, and one well worth future exploration. Thus, we as educators should advocate for the use of innovative interventions in the Social Studies curricula that are more sensitive to the ELL student's perspective by using:

- subject matter that is thematically aligned and culturally sensitive,
- authentic reading for better content understanding and enrichment of the material,
- community-based Social Studies materials that the ELL student can relate to and formulate the basis of a long term conceptual connection.

Due to a 97% majority Spanish-speaking LEP population in Texas, it is possible that a significant amount of Texas' LEP secondary students are Latino immigrants, and as such it is crucial that we employ sound instructional practices as research (Valdés, 2001) has documented many flawed practices that are negatively affecting immigrant Latino students in the schools. English language development research has exposed the multitude of sociopolitical and cultural difficulties facing immigrant Latino children's language acquisition and highlights the almost unintelligible language of subject-matter teachers who utilize "simplified" English (Valdés, 2001, p. 13) in an effort to provide students access to the curriculum.

Valdés' (2001) work exemplifies how teachers with mediocre or low expectations for English language learners in classrooms, predominantly comprised of Latino immigrants, directly affect their chances of success academically, and even socially in their post schooling years. Thus, it is vital that educators continuously pose purposeful inquiry into how immigrant children perceive themselves and their environment, how

others (teachers, mainstream society) perceive them, and clarify meaning when discussing the language of power (Olsen, 2000) when formulating instructional praxis for second language learners, and contemplating the appropriateness of English-based assessments for them.

Generally, research on linguistic diversity suggests that learners develop literacy in similar ways (Weber, 1991). Effective instructional procedures incorporate collaborative learning, writing exercises, vocabulary development, and concept development for second language learners. Thus, what classroom teachers could do to help students continue to develop literacy is to provide all students with many authentic, or "real", reading and writing experiences that allow each individual to use the language that she brings to a learning environment (Au, 1993). As such, this specific instructional recommendation calls for teachers to implement authentic reading and writing experiences in a variety of ways during each of their Social Studies class sessions. These experiences principally should stem from a continuous supported inquiry mode and conversation about the English language learners' lives outside of the Social Studies classroom.

Another instructional recommendation would be that Social Studies teachers purposefully integrate research on limited formal schooling and 'long-term English learners' (Freeman & Freeman, 2002) into their delivery of the content. Research suggests that content-based language instruction is most effective when the content is

organized around themes (Freeman & Freeman, 2002, p. 62) with a classroom where academic language is developed interactively where there is student-led analyses and critical-thinking arguments (Chamot & O'Malley, 1994, p. 41). Depending on the level of instructional flexibility afforded by the school's administration toward the instructor with respect to classroom planning, another recommendation offered here is that she morph the lessons described and/or implicitly suggested in the state's mandated texts (U.S. History Since the Reconstruction textbook, etc.) utilized by the students to fit into a methodology that accommodates the use of two languages (as necessary) while learning Social Studies thematically.

To actively combat the negative *racialization*-based effects of the TAKS accountability system, the overall instructional approach recommended here is a systematic attempt to adapt advocacy praxis of challenging the content of established canon and expanding the range of cultural texts that count as 'really useful knowledge' (Giroux, 1988). If there is any indication that an LEP student may not have received enough exposure to the content for larger socioeconomic/sociocultural issues, an instructor's intervention can help assuage some of the propensity for decreased TAKS performance in the Social Studies classroom.

A teacher could introduce material (local Congressional community newsletters, voting cards, geography maps and atlases) written in both English and Spanish in order to make the secondary school class comfortable with the Social Studies content and gain a

richer understanding of the U.S. Government curricula. Research demonstrates the magnitude "of intellectually stimulating, culturally and socially relevant, and critical content" in school to the creation of bilingual-biliterate learners (Faltis & Hudelson, 1997). Therefore, instructional practices recommended here are those that purposefully integrate all an educator's knowledge, prior experience, and cultural exposure which ultimately results in being that special kind of "transformative intellectual" teacher (Kumaravadivelu, 2003) with the ability to truly change and empower English language learners with their own appropriate level of achievement.

Instructional recommendations call for the use of visuals, poster boards, and professional grade wall print in dual languages if possible so that the classroom has an opportunity to learn and integrate materials in addition to building visual skills necessary to perform well on the Social Studies TAKS (Echevarria, Vogt & Short, 2004). Social Studies teachers may also implement research on the Sheltered Instruction Observation Protocol (SIOP), which facilitates high quality instruction for ELL students in content area teaching (Echevarria, Vogt & Short, 2004). This sheltered instruction model is a framework to bring together instruction for schools by organizing methods and techniques to ensure that effective content adaptation practices are implemented. SIOP practices can be quantified via an observation tool to comply with requirements emanating from reform efforts and accountability measures. The SIOP model increases comprehension of subject matter concepts by promoting language development, defusing content mis-match, and building on prior knowledge. Hence, with this instructional

recommendation ELL students could easily be more apt and able to visualize, read, and subsequently understand the highly complex writings of the U.S. Constitution, its 27 Constitutional amendments, historical significance and symbolism of the U.S. flag, Bill of Rights, and various American history topics ranging from Civil Rights to political party divisions and U.S. cultural values.

Utilizing the paradigms of Piaget's developmental stages and whole language theory (Schwarzer, 2001; Whitmore & Crowell, 1994) and sheltered instruction (Echevarria, Vogt & Short, 2004, p. 23), teachers could instruct ELL students to form small groups in order to read, orally summarize, and answer questions in order to cull a full understanding of the content with peer interaction. Instructional practices which help foment a sense of community identity, and the ELL student's role as an active participant in their community outside the walls of the school environment, should be integrated into instructional planning for Social Studies educators. Social Studies instructors could directly develop student-driven critical inquiry by challenging students to think about how they would impact their society in a variety of ways, such as building their own version of a Constitution to understand the difficulty of the amendment process by experiencing personally the meaning of being an active civic participant in their own respective sociocultural, political, and contextual environment.

By examining and *reconceptualizing* current curricula and addressing issues like American History courses traditionally including "depictions of oppression and marginalization in which little agency is given to members of the minority community" (Salinas, 2000, p.80), educators can capitalize on an opportunity to define and redefine the building of American civics as a unique cultural, historical, and transformative learning opportunity. This can be accomplished with World Geography-U.S. History instructional linkages for ELL subpopulations such as late arrival immigrant secondary students (Salinas, 2006a) which are easily transferable and applicable for use with English language learners in the Social Studies classroom.

The instructional implications of this study expose a need to analyze in greater depth at the classroom level why some of Coastal's ELL students were able to pass the eleventh-grade Social Studies exam during the 2004 TAKS cycle, when previous data shows dismal performance rates. The research results necessitate further exploration and study of those, i) curriculum and instruction interventions used in successful campuses with high TAKS performance; and ii) perhaps even the mitigating factors which prohibit success at campuses and districts in Texas to craft sound instructional strategies, rigorous curricula, and effectuate equitable education policy.

Policy Recommendations

Since over one third (31.2%) of Texas children speak a language other than English at home (Census, 2000b), Texas policymakers should seriously consider amending the code (*Title 19* Education, *Part 2* Texas Education Agency –Chapter 101 Assessment, Subchapter AA - *Rule §101.1005*) to allow ELL students to postpone exit level assessments for at least two to three years, as evidence has shown that it takes more than one year to achieve literacy for the purposes of evaluating content mastery and a minimum of four to seven years to achieve second language proficiency (Thomas & Collier, 2002; Cummins, 2000). As mentioned previously, California offers a two year exemption for ELL students and there is no significant reason why Texas cannot, at a minimum, be on par with other states' assessment policies.

When creating education policy affecting ELL students, state policymakers should understand that instruction for academic content in the native language is essential so that the learner does not suffer academically as he learns English simultaneously. Along with a mastery of content material (such as Social Studies illustrated here), literacy, evaluation, and cognitive skills are most easily developed when taught in a familiar language without any damage to assessment performance as evidenced by data from other bilingual programs (Senesac, 2000). Research suggests that threshold levels of second language skills required for successful participation in formal education differs dramatically across content areas, and that most children face a language gap that must be bridged when they progress from learning the target language to using the target language as a medium of instruction (Swain, 1996).

The mastery of English fluency to gain academic and content knowledge of courses such as Social Studies for a second language learner takes at least 3-7 years (Collier & Thomas, 1997). Therefore, education policymakers should consider directing further resources to bilingual education as this may help decrease dropout figures among ELL youth in Texas. Since the lack of access to comprehensible instruction and assessments is a crucial factor in the academic underachievement and dropout rate of ELLs, the promotion of bilingualism is also very critical for their success (Valenzuela et al, 2006). Policymakers must consider reevaluating the content classes and their role in passing the TAKS test. This research study demonstrates a significant misalignment in the way content affects a student's ability to pass the TAKS exit exam. There is a clear need to investigate whether the content that ELL students are getting in the courses they have taken is being accurately gauged by the TAKS assessment. A more equitable policy change would involve careful consideration of alternatives such as end-of-course content-based assessments that are based in the student's native language, or assessment exemptions that accommodate the student's unique learning trajectory.

Incorporating language acquisition research (Kumaradivelu, 2003) on perceptual mismatches, policymakers should direct resources to investigate options such as creating an instrument in order to measure student "uptake" in order to compare an instructor's perspective on the ELL student's progress with the student's own interpretation of Social Studies' thematic material. Uptake is a student's attempt to incorporate information into

his linguistic production after the expression of a demonstrated gap with the provision of teacher-supplied information (Loewen, 2004). In particular, the adoption of this strategy for ELL students incorporating active learning activities such as essay writing, discussions, and class activities significantly "contributes to transformational learning" (King, 2000). Thus, another recommendation necessitates the allocation of resources to help teachers cull as much information on their students' uptake from a source other than their own sustained provision of feedback practiced during each of classroom sessions. This immediate instructional strategy serves as an alternative way of assessing ELL students' overall performance at the end of a course, versus simply relying on the TAKS examination while awaiting the creation of an alternative multiple compensatory evaluation system (Valenzuela, 2002).

Due to the constrictive nature of Texas education policy with respect to ELL student assessment at the exit-level, I received no linguistic accommodations beyond those of 'Oral Administration' and 'Braille' accommodations typically reserved for Special Education students, when requesting all student accommodations on the TAKS exam from Coastal ISD. The district staff was not able to comply with my request for linguistically-based testing accommodations because such accommodations are not afforded to ELL students taking the exit-level exams (TEA, 2007a). Such linguistically based accommodations are ***only*** offered to children in the primary school and tenth grades Linguistic Testing Accommodations (TEA, 2007b) where there is not such a

propensity for exit-exam political backlash, and then only for the Mathematics and ELA assessments.

The practice of providing linguistic test accommodations to students in order to mitigate potential language problems on large-scale standardized assessments (Abedi, 2003; Abedi et al, 2001) has proven to be absolutely crucial. In light of existing research on fairness in performance assessment (Lam, 1995) and research on appropriate testing accommodations (Coltrane, 2002), Texas education policy should promote if not unilaterally incorporate at all levels, linguistics accommodations for all secondary school students, especially at the high-stakes exit level. Such accommodations include increased time allotted for ELLs, testing in ESL teacher classrooms or other familiar settings, test translation to the student's native language (L1) and administration by an ESL/bilingual educator, and further enhanced response alternatives such as responding to test items in the learner's native language and/or dictation of response to test administrators in their native language.

Further, Texas education policymakers should consider the recommendation that a multiple measures accountability system (Valenzuela, 2002) be designed expeditiously with the explicit intent on revising the system to be valid, reliable, and fair. With respect to the aforementioned evidence of Coastal's TAKS data, another policy recommendation would be that TAKS assessments include experts in the respective content field. According to accountability education experts (Confrey, Valenzuela, & Ortiz, 2002),

there exists a certain need for a content specialist or a person with expertise in subject areas like Social Studies, for instance, to properly understand the dynamics related to ELL performance on this particular assessment. The State Board of Education's Technical Advisory Committee should be changed to include experts in content areas, multicultural education, and language acquisition.

For even more equitable education policy, a compensatory system could be developed to weight various measures that comprise the review process for a school's decision-making abilities with respect to graduation and retention. This is particularly salient for both ELL and Latino students whose presence or lack thereof from our state and local public school systems in an unprecedented fashion as evidenced by attrition and accountability research (IDRA, 2006; Sanchez & Salinas, 2005; Valenzuela et al, 2006). Specifically, Texas' education statute §101.2007 (f) (1), states the following criteria may be used to evaluate students: "Grades, portfolios, work samples, local assessments and individual reading and mathematics diagnostic tests or inventories". Thus, the current TAKS-based assessment system could be broadened to be more productive and inclusive fashion of all learners, and simultaneously guard against unduly punishing students who may be anxious or poor test takers such as young females, minorities, and second language learners (Confrey et al, 2002).

A major policy recommendation is that Texas' State Board of Education and even our federal U.S. Department of Education seriously reconsider both how and what types

of data are currently being collected as evidence to confirm validity with this assessment instrument since this research illustrates that a significant amount of ELL students score below their non-ELL peers on the Social Studies exam. Thus, there is a need to analyze drop-out rates related to ELL performance on the exit exams. Moreover, although quality of instruction is a vitally important factor for TAKS performance, it is currently impossible to gather easily so more than likely no one is reporting it in a uniform fashion to even begin to analyze it. Teacher quality should be dynamically captured by the state's board of education as well as the federal Department of Education, not simply in the current ways that hurt teachers and *incentivize* them to teach to the content on the TAKS test, but instead in such a way that rewards those that implement innovative strategies along with the instruction. This could perhaps be reflected in the student's GPA or successful mastery of the content via alternative assessments that compliment the current TAKS based accountability landscape that ELL students tread on carefully.

Finally, data synchronization issues need to be addressed. Data reporting issues uncovered by this research may be due to what most likely stems from inadequate organizational effectiveness for data collection or disaggregated official repository procedures as I was informed that the standard data protocol required the CISD consultancy staff to cull and synthesize my original data request, and that this would require significant manpower hours to be billed to me "their client" for this special request. The district personnel informed me that they had a significant backlog of internal data analysis projects ahead of my external request for information, and

inevitably it would require more than half a year to receive information regarding my data request. This is a clear indication that the district is significantly strapped for resources, both technical and structural, which may ultimately hinder and or prevent the implementation of greater instructional effectiveness by school administrators due to the expedient availability of data. As such, further resources need to be devoted to support districts to comply with accountability system's reporting functions.

Implications

Research on aggregate data of drop out rates strongly suggest that state mandated minimum course requirements cause students to drop out of high school (Lillard & DeCicca, 2001). The estimated effects of state mandated requirements would constitute an increase in the population of dropout students in 1990 of 3.0 to 7.4 percent (Lillard & DeCicca, 2001) indicating that that the costs of higher graduation standards and No Child Left Behind assessment policies in essence have the unilateral potential to significantly impact our society's labor force. With respect to critically questioning the net benefits of standardized assessment policy, documented evidence derived from statistical information reported to the Texas Education Agency and from exit exam scores for students in all high schools at Coastal ISD suggests that there are significant TAKS performance gaps for ELLs (and Latinos). This dissertation illustrates that 14% of CISD's twelve-grade students required a re-testing opportunity with the TAKS assessment in their final year of high school before graduation, in an attempt to overcome the high-stakes challenge of the exit exam. These results have significant potential for

future research into how the TAKS assessment process affects the drop out rates of sociocultural and linguistic minorities.

First and foremost, this research does not purport to unilaterally address a concern that performance on the TAKS assessment may be correlated to the low high school graduation rate of ELL and Latino students as I lacked student level data records of ELL drop out metrics for inclusion into the regression modeling and development of the CCSSE model. However, I used evidence of performance gaps between ELLs and their peers in previous TAKS assessment cycles with graduation data by year on ELL and Latino students at CISD (Sanchez, & Salinas, 2005) to draw some general inferences in order to cull macro level implications for this study. The research showed that during the 2003 academic cycle less than half (42.2 %) of ELL students graduated for students in grades 9-12 at Coastal Independent School District. In 2002, the ELL student graduation rate at Coastal ISD had been slightly better at 47.1 percent – indicating a decrease of approximately 5 percentage points in the number of graduating ELLs the year thereafter (*see Table 5.0*).

Table 5.0: Coastal ISD ELL Graduates

Graduates	ELL	Latino	White	State
2003	42.2%	64.2%	84.2%	84.2%
2002	47.1%	67.9%	86.3%	82.8%

Source: TEA, AEIS 2004 report

The rates for ELL students dropping out of school (*see Table 5.1*) increased from 22.5% to over 28% during the previous published cycle in 2003 signifying some cause

for concern with this segment of the student population at the Coastal district (Sanchez, & Salinas, 2005). It is evident that there is a demonstrable need for interventions such as those that are grounded in the specific make-up of the student, regardless of where she comes from or what language she is accustomed to speaking. If we are to have the next generation be a productive, well-educated partner in the global economy, we must begin early with students in our own backyards at both local and state levels.

Table 5.1 – Coastal ISD ELL Drop Outs

Students	ELL	Hispanic	White	State
2003	28.6%	18.2%	5.7%	4.5%
2002	22.5%	12.2%	3.8%	5.0%

Source: TEA, AEIS 2004 report

Thus, it is important to examine in greater detail the contributing factors affecting assessment performance, and identify possible correlations between exit exams and ELL graduation rates in today's harsh assessment landscape for English language learners, Latino and other culturally diverse students in high school. As mentioned earlier in this study, U.S. schools are faced with a growing number of students from culturally and linguistically diverse backgrounds for a variety of socioeconomic reasons (Obiakor & Utley, 1997). It is crucial that we acknowledge that students who are culturally and linguistically different present a special challenge to mainstream educators. Furthermore it is important to note that the fastest growing student population in the U.S. is within those segments with which American education has traditionally been least successful, that of the African American and Latino/Hispanic populations. As these segments of the

population experience improper schooling praxis, it is ELL youth who inevitably bear the long-term effects as adults engaged in a daily socio-linguistic struggle to communicate (Sanchez, 2007) than the native English-speaker.

It is the language minority learner who must learn to confront everyday instructional challenges because he lacks social or cultural capital to offer resistance and essentially combat misappropriation with "*Mushfake*"(Gee, 1996, p.147) when fighting for survival in academic settings. It is important to note that amongst the many factors that contributed to the disproportional representation of students from culturally and linguistically diverse backgrounds proscribed into special education, one salient factor is the failure of teachers to use culturally responsive instructional practices that address their educational, social, and cultural needs (Smith, Finn, & Dowdy, 1993).

A disproportionate number of students from culturally and linguistically diverse backgrounds have been inappropriately referred to and placed in special education (Yates, 1998). The egregious overrepresentation of students from culturally and linguistically diverse backgrounds in special education has long-term detrimental negative consequences on students and their school performance because it places them in a separate and unequal track that denies them access to the general education curriculum. Further, once placed in special education classes, these students often encounter lowered teacher expectations, a 'watered-down' curriculum, and less effective instruction that can have deleterious effects on their school performance, self-esteem,

behavior, education and career goals, and motivation to achieve (Nieto, 1996). Consequently, these students often do not return to general education placements and frequently leave school before graduating.

The implications of not only failing to educate culturally and linguistically diverse, but actually contributing to their decision to drop out or leave school are enormously serious, and require both instructional review and immediate policy-based intervention of the highest magnitude. Research on the disappearance of secondary ELLs in Texas finds that they are more than twice as likely to drop out or 'disappear' as non-ELL students, clearly demonstrating as yet another negative consequence of a stringent TAKS-based educational landscape (Valenzuela, Fuller, & Vasquez-Heilig, 2006). Such statistical evidence presumes an added importance for Texas because of the state's changing demographics.

For instance, Latinos constitute nearly 40 % (Texas State Data Center, 2007a) of the state's public school population, and over the next 30 years (Texas State Data Center, 2007b), the state's Latino population is expected to increase to almost 50% of the state's demographic composition (*see Figure 5.1*). Further, the U.S. Census Bureau (Guzman, 2000) reported that half of all Latinos reside in California and Texas, with the 6.7 million Latinos in Texas accounting for 18.9% percent of the total Latino population in this country.

Figure 5.1: Demographics for Texas in 2000

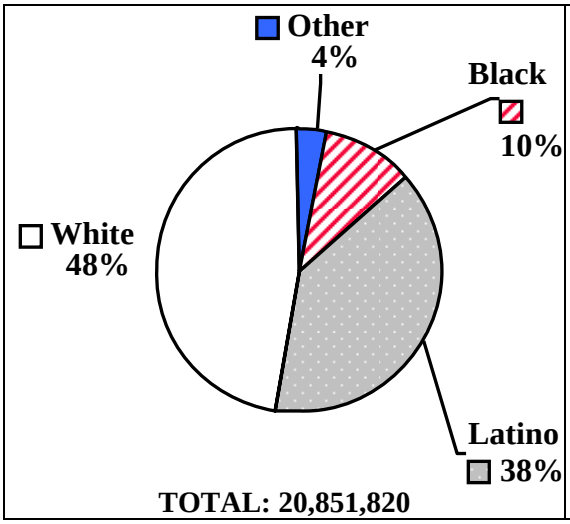
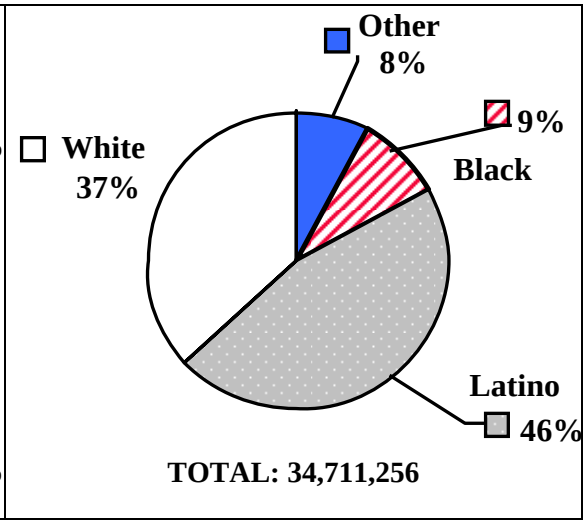


Figure 5.2: Demographics for Texas in 2030



Source: 2000 Census Texas State Data Center, (2007a), (2007b)

The Census (2000c) also reports that of the language spoken at home, a total of 361,231 people indicated that they speak Spanish. Demographics for Texas' population composition indicate that the needs of Texas children will more than likely revolve around the Latino cultural, immigrant, or ELL segments that are predominant in the makeup of this large portion of the population (*see Figure 5.2).*

With respect to underrepresented minority and ELL students, one need only review the current state of education in the nation's urban areas. In many of the country's major cities, minorities comprise the majority. The situation is no different in the large state of Texas which is comprised of several densely populated urban areas sprinkled across various regions of the state with students of all races and socioeconomic class who may or not have completed a high school education. The implications of these statistics are daunting when formulating equitable education policy when one realizes that urban minority students are becomingly increasingly failed by the state's TAKS based

assessment system due to the *incentivized* pressure on schools to "pushout" and "game" students' learning progress whom they believed would negatively affect their test scores and accountability ratings (Vasquez-Heilig, 2006). Moreover, the cumulative costs of students leaving public high schools prior to graduation continue to escalate.

According to Intercultural Development Research Association (IDRA) an independent non-profit education organization, Texas has lost almost 2 million students from its high schools since 1986. IDRA's study of 86,276 students comprising Texas public high school drop-outs cost the state $17 billion in forgone income, lost tax revenues, as well as increased job training, welfare, unemployment and criminal justice costs (Cárdenas, Robledo & Supik, 1986). By the year 2001, the estimated cumulative number of Texas public high school dropouts grew to 1.6 million students with a net loss in revenues and related costs to the state at 441 billion dollars. IDRA (2002) attrition studies presented to the Texas State Board of Education on September 12, 2002 reflected that 143,175 more students were lost to attrition in 2001-2002. Texas experienced a 39 percent overall attrition rate for the class of 2002. Following a 16-year trend, Texas' Hispanic/Latino students had the highest attrition rate at 51%, followed by African American students at 46%, Native American students at 29%, and White students with an attrition rate of 26 percent.

For the 2005-2006 school year, longitudinal reports of time series data tracked by IDRA (2006) found that of the state's entire 137,162 attrition loss, a total of 80, 505

students– well over half at a rate of 59 percent, of the students dropping out of Texas schools were of Latino ethnicity. Educational administration policymakers should note that there is a compelling need for interventions such as those that are grounded in the specific make-up of the learner, regardless of where the learner comes from or what language s/he is accustomed to speaking. If we are to have the next generation be a productive, well-educated partner in the global economy, we must begin early with cultural and linguistic minority students in our schools. The fact that the state is losing a significant amount of its fastest growing student population has a potentially paralyzing effect on the balance of power and provision among the educated and non-educated underclass, our ability to produce home-grown intellectual capital, and ultimately the quality of life within the uniquely rich sociolinguistic culture that is Texas.

Conclusion

It is evident from this study that the vulnerability of both ELL and Latino children is being seriously compromised as demonstrated by the inequities in performance on the English-based TAKS exams. The ELL segment of the so-called "at-risk student" population performs significantly lower by a large margin than the non-ELL students. If policymakers, teachers, and education administrators are serious about combating the psychoeducational practices that reinforce deficit assumptions for language minority students' performance, then the lack of ELL instructional personnel needs to be addressed first and foremost.

Secondly, it is important to note that there exists a tremendous need for further research of large-scale ELL assessment education and examination of legislative policies with the hopes of dispelling unrealistic exemption timeframes for second language learners or other short-term approaches that may not be appropriate. Relying on most commercially developed language assessments as a litmus test for assessing a student's readiness to take standardized assessments in English is by default, shortsighted because most of language assessments are not appropriate measures of academic language. Research says that a second language learner requires sufficient time to acquire academic language (Cummins, 2000), so testing students before they are linguistically ready is not appropriate. Policymakers must take note that if ELL students are expected to take a standardized assessment before they are linguistically ready (Abedi, 2003), then the resultant test scores will not be accurately interpretable, nor will they be reliable if their content items lack linguistically-based accommodations (Abedi & Hejri, 2004).

Standardized tests are used for evaluation and accountability in Texas as well as in other states across the nation. Granted test scores such as those from the TAKS may be used as an informative tool for evaluation, but a test can furnish only one portion of the assessment picture of any learner, and only as one component of a comprehensive evaluation system. They should not be used as a 'carrot at the end of a stick' or in any fashion to prevent any child from attaining a high school diploma or to promote further retention entrenchment. Multiple frameworks for educational research and evaluation are

crucial for our commitment to ensuring high quality and equitable educational opportunities for all children, regardless of race, creed, or linguistic capability.

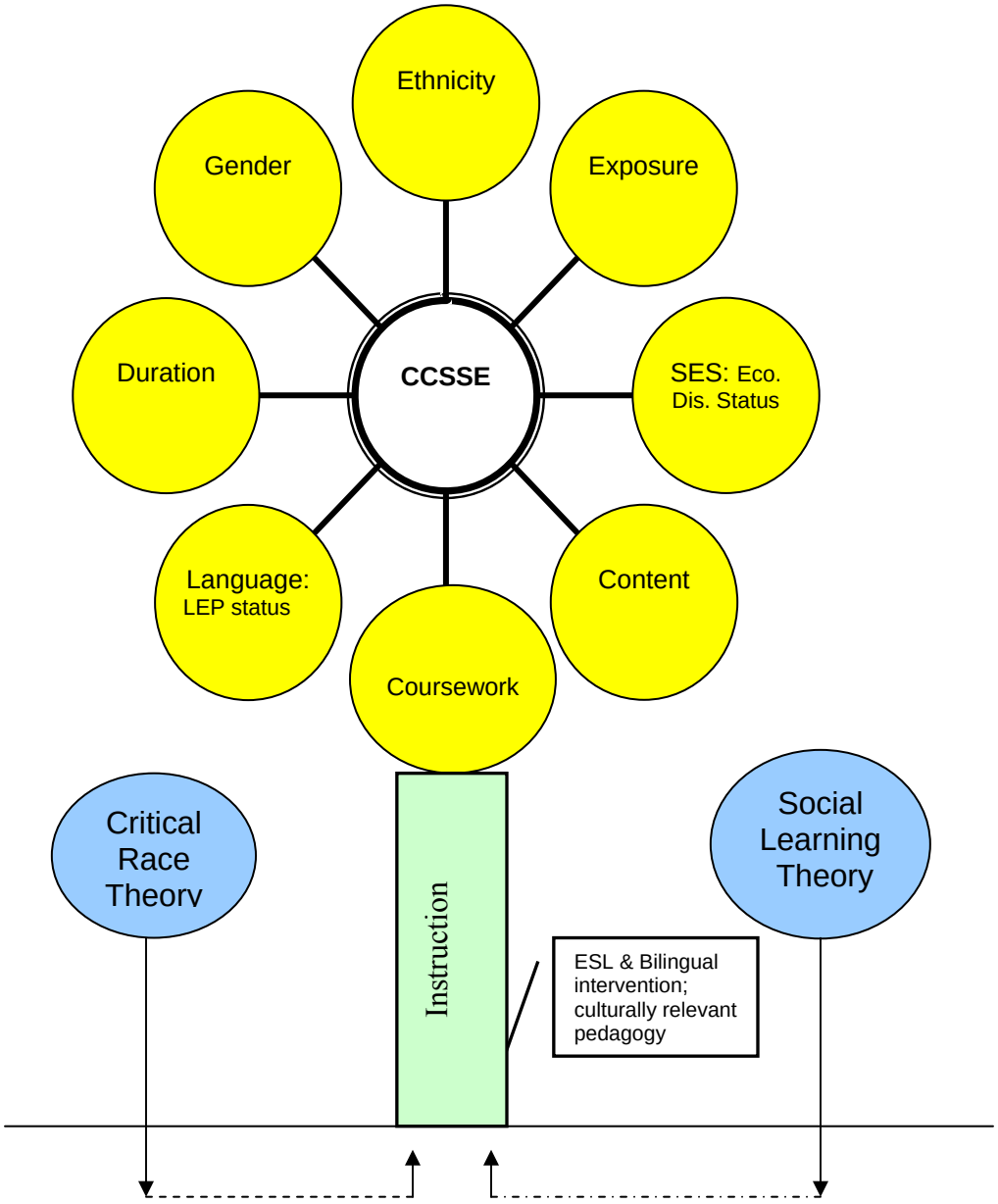
For the educational research field, the imminent threat of using only scientifically based research without considering appropriate linguistic accommodations and examination of the sanctioned content, is that its perceived soundness would nonetheless allow for the continued and sanctioned neglect of those who have been marginalized and excluded from the discourse. A political society like ours that disseminates its findings to the general public requires a patented shift of the focus from chosen research method to the epistemological assumptions and paradigms held by the educational researcher. To that end this research sought to engender discourse for a more democratic debate, which would be to focus on producing educational research grounded in an understanding of the direction that multi-lingual/multi-cultural education should take with demonstrable evidence and capacity to formulate inquiry of the questions that need to be asked on behalf of ELL students. If the state and its many school districts insist on using high-stakes testing for ELL students, then it is critical that such assessment be performed correctly and appropriately. The basic principles of appropriate testing are relatively clear and have unilateral support among researchers (AERA, APA, NCME, 1999).

Finally, we need to examine other relevant interventions, such as bilingual or biliteracy programs for the secondary level, the effects of language on the content, and teacher intervention if we are to intervene successfully and appropriately measure our

students' academic progress. We need to know much more about the practice of successful 'advocate educators' for English language learners, Latinos, and other students who have been inadequately served by our public school system's extreme accountability measures and policies.

APPENDIX

CCSSE Conceptual Framework



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San Juanita "Janie" Muñoz Sánchez is an Adjunct Faculty professor at a Houston area college, public speaker, consultant, and May 2007 Ph.D candidate of the Curriculum & Instruction department at the University of Texas-Austin. She was a 2001 Visiting Scholar at the Mid-continent Research for Education and Learning Lab where she evaluated innovative programs nationwide. McREL is a private, nonprofit organization whose purpose is to improve education through applied research and development. She worked for the Senate Hispanic Caucus of Texas and Governor Ann Richard's Office of Leadership & Volunteerism and Commission on Women, when she was selected to become a Woodrow Wilson Fellow in 1993. After receiving her B.A. from the University of Texas at Austin, she went on to develop federal education public policy for the Congressional Hispanic Caucus, and the U.S. Congressional Subcommittee on Education and Labor during her tenure with 3 members of Congress including the Chairman of the Congressional Hispanic Caucus, Congressman Ed Pastor (AZ), Congresswoman Nydia Velazquez (NY), and Congressman Gene Green (TX, CHC Associate) at the U.S. House of Representatives in Washington, D.C. She received a Master of Science from the H. John Heinz III School of Public Policy and Management while undertaking a dual MS/MBA program course of study with the Graduate School of Industrial Administration (renamed Tepper School of Business) at Carnegie Mellon University in Pittsburgh, PA. At Carnegie Mellon, she originated a proposal, organized, and led a socio-economically based policy research team to conduct a national performance assessment of alternative financing practices for federal legislators (1997, May) based on her work with U.S. House Banking & Financial Services Committee legislation. She initiated and completed national survey-based research (1994, Oct) focusing on recruitment, admissions, and retention of minority graduate students under the stewardship of the Association for Public Policy, Analysis & Management and the Urban Institute. She has presented research at various national conferences such as the American Association for Teaching & Curriculum (2005). She has experience serving domestic and overseas markets while working for PricewaterhouseCoopers, Deloitte & Touché, Fortune 500 global corporations, and the federal government. As a lifelong activist for education, health, and women's issues, she was selected by the U.S. State Department to represent the U.S. as an official governmental delegate on a delegation chaired by First Lady Hillary Rodham Clinton to the 4th United Nations World Conference on Women in Beijing, China (1995). She is the former Chairman of the Board of Directors for the National Latina Health Organization (NLHO), member of the American Educational Research Association (AERA), and National Council on Measurement in Education (NCME). She has two children and is married to Houston businessman, Thomas B. Sanchez. Her areas of specialization are the application of regression methods to large scale measurement and assessment, predictive modeling, performance assessments, and organizational effectiveness. Along with experimental design for education policy and reform, her research interests include issues of access, diversity, and equity.

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