AN ANALYSIS OF THE REPRESENTATIONAL PATTERNS OF ENGLISH

LANGUAGE LEARNERS RECEIVING SPECIAL EDUCATION

SERVICES IN SCHOOL DISTRICTS IN SOUTH TEXAS

A Dissertation

by

DIANA LINN CONTRERAS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2006

Major Subject: Curriculum and Instruction

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ABSTRACT

An Analysis of the Representational Patterns of English Language Learners

Receiving Special Education Services in School

Districts in South Texas. (May 2006)

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    This study examined the representational patterns of English language learners receiving special education services in school districts in South Texas. Additionally, this study identified school district characteristics that were related to the probability that an English language learner might be placed in special education programs. Data were collected from the Texas Education Agency's *Performance-Based Monitoring Analysis System 2004-2005* and *Academic Excellence Indicator System* for the 2003-2004 school year. Composition indices, risk indices, and relative risk ratios were calculated and reported for each of the school districts in Education Service Centers I (Edinburg), II (Corpus Christi), and XX (San Antonio) in the State of Texas (N=110). Pearson product-moment correlation coefficients were calculated to determine the direction and strength of the relationship among odds ratios and school district characteristics. These characteristics included total student enrollment, percentage of poor/underserved students, percentage of Latino students, percentage of English language learners,

percentage of Latino teachers, and percentage of students in bilingual/English as a second language programs.

Results indicated that English language learners in school districts in South Texas were more than twice as likely as their non-English language learner counterparts to receive special education services. Additionally, inverse relationships were documented for odds ratios equal to or greater than 2.00 and the school district characteristics of percentage of poor/underserved students, percentage of Latino students, percentage of English language learners, percentage of Latino teachers, and percentage of students in bilingual/English as a second language programs. It was concluded that there was an overrepresentation of English language learners receiving special education services in 77% (N=85) of the school districts in South Texas.

DEDICATION

To my children, Máximo and Sandra

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CHAPTER I

INTRODUCTION

As children in America's classrooms increasingly come from culturally and linguistically diverse families, teachers are faced with the challenge of educating a more diverse population than ever before (Gollnick & Chinn, 2006). Related to the increased diversity of the school population is the concern of the disproportionate number of students of color receiving special education services (Warger & Burnette, 2000). The phenomenon of disproportionate representation has been documented and studied for more than 35 years (Hosp & Reschly, 2003). Reports and studies (Donovan & Cross, 2002; Losen & Orfield, 2002; U.S. Department of Education, 2001; Zhang & Katsiyannis, 2002) continue to document the overrepresentation of African American and Native American children in programs for students with mild disabilities and the underrepresentation of Asian American and Latino students in these special education programs. However, research is limited concerning the representation of English language learners in special education programs (Klingner & Artiles, 2003). Results from the limited research that do exist document contradictory conclusions.

In a recent study, Zehler et al. (2003) reported an underrepresentation of English language learners receiving special education services, while other researchers have found that English language learners are overrepresented in special education programs (Artiles, Rueda, Salazar, & Higareda, 2002). Not surprisingly, many researchers are

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The style for this dissertation follows that of *The Journal of Educational Research*.

calling for a better understanding of the issue of disproportionate representation as it relates to students of color, especially English language learners (Grupp, 2004; Katzman, 2003; Robertson & Kushner, 1994; Zhang & Katsiyannis, 2002).

Statement of the Problem

In Texas, a comprehensive, multifaceted study of disproportionate representation of students of color in special education was conducted (Johnson, Lessem, Bergquist, Carmichael, & Whitten, 2002). When compared to the other 49 states, some with double-digit disparities, Texas showed only a slight (1.42%) overrepresentation of students of color served in special education programs. Additionally, it was found that Latino "students [in Texas], especially those with limited English proficiency, were consistently under-represented in special education programs" (Johnson et al., 2002, p. 11). However, Special Education Data Analysis System (DAS) data for Education Service Center (ESC) Region I, where almost 96% of the students are Latino and 38% of the students are English language learners, showed 79% of the school districts with overrepresentation percentages of English language learners in special education programs. These percentages ranged from 4.1% to 33.4% during the 2000-2001 school year and placed the school districts at a risk level of 3 or 4. A risk level 3 meant that the ethnic difference score fell between the 5th and 19.9th percentile, and a risk level of 4, meant that the ethnic difference score for the district fell below the 5th percentile when compared to the state median (Texas Education Agency, 2002).

Interestingly, the State of Texas added a data element to its accountability instrument (i.e., DAS) for the 2002-2003 year. The new data element, "potential

disproportion of limited English proficient (LEP) students served in special education identified as having a Speech or Language Impairment (SLI)," is "designed to address specifically identified state-level concerns relating to the provision of services to students with disabilities" (Texas Education Agency, 2002, p. vii). Although, Johnson and his colleagues may be correct by stating as one of their conclusions that "Texas does not have a statewide problem with overrepresentation of minority children in special education" (p. 14), a serious problem may exist in some districts across the state where referral, testing, and placement of Latino students and English language learners in special education programs take place. Given the high percentage of Latino students and English language learners in certain sections of South Texas (e.g., ESC Region I), there is a need to examine the representational patterns of English language learners in special education programs.

Purpose of the Study

The purpose of this study was to examine representational patterns in South Texas of English language learners identified as having disabilities. Additionally, this study identified school district characteristics that were related to the probability that an English language learner may be placed in special education programs.

Research Questions

This quantitative descriptive research study answered the following questions:

1. What are the representational patterns of English language learners receiving special education services in South Texas?

2. What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas?

Significance of the Study

This research will add critical information to the knowledge base about the representational patterns of English language learners in special education programs and possible commonalities between the representational patterns of English language learners and school districts' characteristics that may affect the possibility that an English language learner would be identified as requiring special education services. This information is especially important as the linguistic diversity in schools continues to increase, and school districts may need to address potential disproportionate representation of English language learners.

Theoretical Base for the Study

The results of this study are discussed in terms of the paradigm of critical theory. Like interpretivist theory, critical theory emphasizes the social construction of knowledge. Additionally, critical theory addresses the issue of power and the political, social, and economic inequalities of the society at large (Knapp & Woolverton, 2004). Knapp and Woolverton argued, "the institution of formal schooling, according to critical theorists, is a societal force that contributes to domination and oppression by mirroring the worldview of the elite, and by instruction that results in differential outcomes that support the elite worldview" (p. 551). Specifically, "schools reproduce hierarchy, exclusion, and inequality among racial groups and social classes, in part by selectively

disseminating differentiated knowledge – high status to low-status – to children"
(Gordon, 2001, p. 190). Patton (1998) argued that traditional modes of inquiry in the
field of special education have failed to take into account the social, economic, and
political influences on education. The fact that African American students have been
repeatedly misidentified, misdiagnosed, and misplaced in special education classes raises
serious concerns regarding civil rights violation and racial discrimination (Patton, 1998).
The same concern may be true for other students of color such as Latinos and English
language learners. Artiles, Rueda, Salazar, and Higareda (2002) noted that when Latinos
and other groups are studied at the national level, Latinos are not overrepresented (e.g.,
the way that African Americans are); however, "when the issue of language is added in,
the results change and a serious civil rights issue emerges" (p. 118).

Definition of Terms

The terms and definitions used in this investigation are as follows:

Disproportionate representation: Comparison of "the number of [culturally and
linguistically diverse] students . . . identified [as requiring special education
services] with their representation in the student population" (Donovan & Cross,
2002, p. 35).

English language learner: Refers to a student "whose primary language is other than
English and whose English language skills are such that the student has difficulty
performing ordinary class work in English" (Texas Education Code, 1995,
§29.052). Although the term limited English proficient (LEP) is still used in
some professional literature, research reports, and databases, the term English

language learner will be used throughout this study unless a reference to the

source requires the use of the term limited English proficient.

High incidence disabilities: Include the disability categories of mild mental retardation,

learning disabilities, emotional disturbance, and speech/language impairments

(Meese, 2001). These disabilities comprise almost 90% of students, ages 6-21,

served under the Individuals with Disabilities Education Act (U.S. Department of

Education, 2001). High incidence disabilities are also referred to in research

reports and the professional literature as judgmental categories, soft categories,

and mild disabilities.

Latino: Refers to a person of Latin American or Caribbean heritage. Latino is the

preferred term in the literature and is considered more accurate, although

Hispanic is more widespread and well known (Nieto, 2004). The writer will use

the term Latino throughout this study unless a reference to other published

documents requires the use of the term Hispanic.

Low-incidence disabilities: Include the disabilities of visual impairments, hearing

impairments, physical disabilities, multiple disabilities, and autism. Students with

these disabilities are less commonly represented in schools than students with

higher incidence disabilities (Mastropieri & Scruggs, 2004). Low incidence

disabilities are also referred to in research reports and the professional literature

as non-judgmental categories, hard categories, and severe disabilities.

Poor/underserved students: Referred to in many databases as economically

disadvantaged. Defined by Texas as students "eligible for free [or] reduced-price

meals under the National School Lunch and Child Nutrition Program"

(Carmichael & Whitten, 2002, p. 34).

Representational pattern: Refers to similarities and/or differences in the

distribution/assignment of students of color to special education categories.

School district characteristics: Characteristics that are associated with a school district,

including total student enrollment, percentage of poor/underserved students,

percentage of Latino students, percentage of English language learners,

percentage of Latino teachers, and percentage of students in bilingual/English as

a second language programs.

Special education services: Refers to "specially designed instruction, at no cost to the

child's parents, to meet the unique needs of a student with a disability" (Turnbull,

Turnbull, Shank, & Smith, 2004). In Texas, "'special services' means special

education instruction, which may be provided by professional and supported by

paraprofessional personnel in the regular classroom or in an instructional

arrangement [e.g., resource room or self-contained setting]" (Texas Education

Code, 2001, §29.002)

Students of color: Refers to "racial groups in the United States that have historically

experienced institutionalized discrimination and racism because of their physical

characteristics. These groups include African Americans, Asian Americans,

Latinos, Native Americans, and Native Hawaiians (Banks, 2002, p. 124).

Additionally, the term "students of color" describes [students] who have faced

institutional racism and intergenerational poverty" and "is an attempt to focus

attention of the educational, developmental, and political needs of individuals

who are not positioned at the center of society (Pang, 2005, p. 265). Although the

terms minority students and culturally and linguistically diverse students are used

in some professional literature, research reports, and databases, the term students

of color will be used throughout this study unless a reference to the source

requires the use of an alternate term.

South Texas school districts: The 130 school districts that comprise Education Center

Regions I, II, and XX.

Assumptions

For the purpose of this study, it was assumed that the data provided to the

researcher from the Texas Education Agency were accurate.

Limitations

The researcher acknowledges the following limitations of the study:

1. All school districts in the State of Texas are not included in this study. The

   population for this study is the districts included in the three Education

   Service Centers in South Texas.

2. District data were analyzed for the aggregate category of all disabilities;

   therefore, results cannot be generalized to individual categories of special

   education; for example, learning disabilities.

Organization of the Study

Chapter II will present a review of the literature concerning the historical

perspectives and the current estimates of disproportionate representation of students of

color in special education, factors that are associated with disproportionality, as well as how the lens of critical theory can be used to interpret disproportionate representation of students of color in special education. Chapter III will describe the methodology and procedures for the study including how the data were collected and analyzed. Chapter IV will present the results of the study. Finally, Chapter V will present the findings of the study, conclusions, practical implications, and suggestions for future research.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a review of the pertinent literature concerning the representational patterns of English language learners receiving special education services in the State of Texas. The first section provides an historical perspective on the disproportionate representation of students of color in special education programs as well as the current estimates of students of color receiving special education services. The second section provides an in-depth discussion of English language learners in special education. The third section of the literature review examines a comprehensive study conducted in Texas regarding disproportionate representation of students of color receiving special education services. The fourth section considers factors associated with disproportionate representation of students of color in special education. Finally, the fifth section discusses critical theory as a theoretical framework for understanding disproportionate representation in special education.

Disproportionate Representation: Historical Perspectives

and Current Estimates

Disproportionate representation occurs when differential proportions of students of color receive special education classes either more often or less often than would be expected, given their presence in the general student population. For example, overrepresentation occurs when the percentage of students of color in special education exceeds the percentage of these students in the total student population (Zhang & Katsiyannis, 2002). Artiles and Trent (1994) have argued that the disproportionate

numbers of students of color being placed in special education classrooms is problematic because it "questions the efficacy of our professional practices and challenges the basic notion of honoring the diversity that we as a field presumably embrace" (p. 411). Additionally, Burnette (1998) noted that the Office for Civil Rights has three concerns regarding disproportionate representation: "(1) Students may be unserved or receive services that do not meet their needs, (2) Students may be misclassified or inappropriately labeled, [and] (3) Placement in special education classes may be a form of discrimination" (p. 1).

Historically, an examination of disproportionality of students of color in special education programs delineates several trends. The examination begins with Dunn's 1968 seminal article, *Special Education for the Mentally Retarded: Is much of it Justifiable?,* and continues through almost four decades of data analysis, research, and discussion. Trends for African American students remain constant throughout the examination of data in the professional literature. This group of students has been and continues to be overrepresented in virtually every disability category included in the Individuals with Disabilities Education Act (IDEA), most notably and alarmingly in the two high incidence categories of mild mental retardation and emotional disturbance.

Trends for Latinos are less discernable. During the late 1960s and early 1970s, Latinos were overrepresented in classes for students with mild mental retardation. At the end of the seventies, Latinos were considered to be slightly overrepresented in the disability category of learning disabilities, underrepresented as students with speech/language impairments, and had identification rates in special education programs

for mild mental retardation and emotional disturbance slightly under or close to that of

their European American counterparts. During the 1980s and 1990s, Latinos were

underrepresented in the disabilities categories of emotional disturbance and speech/

language impairments and demonstrated representational patterns similar to that of their

European American peers in the categories of mental retardation and learning

disabilities.

Historical Perspectives

Disproportionate representation of students of color receiving special education

services was first identified more than 35 years ago with the publication of Dunn's 1968

seminal article documenting the increasing number of students of color being placed in

classrooms for the educable mentally retarded (Zhang & Katsiyannis, 2002). Using

statistics from the U.S. Office of Education, Dunn (1968) reported:

> About 60-80 percent of the pupils taught by [teachers in segregated classes for
> students with mild mental retardation] are children from low status backgrounds-
> including Afro-Americans, American Indians, Mexicans, and Puerto Rican
> Americans; those from nonstandard English speaking, broken, disorganized, and
> inadequate homes; and children from other non-middle class environments. (p. 6)

Since then, numerous studies have continued to document the reoccurring trend

of disproportionate numbers of students receiving special education services (Chinn &

Hughes, 1987; Donovan & Cross, 2002; Finn, 1982; Harry, 1994; Heller, Holtzman, &

Messick, 1982; MacMillan & Reschly, 1998; Reschly & Wilson, 1990; U.S. Department

of Education, 1997). For example, in 1973, Mercer published the results of a study

conducted of students in Riverside, California, in the late 1960s. She found that although

Latinos comprised 7% of the age 6-15 sample, they represented 12% of the students

placed in classes for students with mild mental retardation, referred to as educable mentally retarded [EMR] at the time. In contrast, European American students comprised 82% of the school population, but only represented 53% of the students placed in EMR programs. Finally, African Americans represented 9.5% of the school population although they accounted for 32% of students in EMR classes (Reschly, 1996).

In 1979, after 12 years of national surveys had "revealed an overrepresentation of minority children and males in special education programs for mentally retarded students" (Heller et al., 1982, p. ix), the Office of Civil Rights (OCR) commissioned the National Research Council to conduct one of the first comprehensive studies of the extent of disproportionate representation. The report, *Placement of Children in Special Education: A Strategy for Equity,* included an examination of national trends in disproportionality using data from the Office for Civil Rights for the 1978-1979 school year. Finn (1982) found that African American students were overrepresented in special education classes for students with mild mental retardation and emotional disturbance, and Latinos were slightly overrepresented in classes for students with learning disabilities, but were placed in classes for mild and moderate retardation and serious emotional disturbance at a rate very close to that of non-Hispanic Whites. Finally, Latinos were underrepresented in classes for students with speech/language impairments when compared to their European American counterparts.

Chinn and Hughes (1987) continued to analyze data from the Elementary and Secondary School Civil Rights Compliance Report from the Office for Civil Rights and documented similar trends regarding disproportionality for the years 1978, 1980, 1982,

and 1984. Latinos were underrepresented in special education classes for students with

mild mental retardation, emotional disturbance, and speech/language impairments, but

found to be overrepresented in classes for students with learning disabilities for the year

1978. For the other years cited in the report, Latinos were identified as having learning

disabilities at rates comparable to that of European American students. However, in a

critique of this report, Harry (1994) noted that the findings regarding Latinos were

misleading because of the "reliance on national aggregated data excludes the important

differences that exist among States" and similarly noted "overrepresentation of [Latinos]

is dramatically evident in States where these students constitute a large proportion of the

school population" (p. 13). The Office for Civil Rights documented similar trends in

national data for Latinos in the late 1980s and throughout the decade that closed the

twentieth century (Donovan & Cross, 2002; Harry, 1994; MacMillan & Reschly, 1998;

Reschly & Wilson, 1990).

In its *Nineteenth Annual Report to Congress on the Implementation of*

Individuals with Disabilities Education Act, the U.S. Department of Education (1997)

regarded disproportionate representation of students of color in special education

programs as a civil rights concern. Citing OCR Survey data from 1992, the document

reported that although African Americans accounted for 16% of the total student

population, they comprised 32% of the students in classes for mild mental retardation

and 24% of the students receiving services as students with serious emotional

disturbance. At the time, Latinos represented 12%, but only 5% of the students in

programs for students with mild mental retardation and 7% of the students receiving

services as students with serious emotional disturbance. As students with learning

disabilities, Latinos were identified at the same rate as their percentage in the general

school population. Subsequently, given the concern of disproportionality, the 1997 IDEA

Amendments required that states collect data regarding race/ethnicity and special

education placement beginning with the 1998-1999 school year. In the three reports

issued since this mandate took effect, trends in disproportionate representation have

essentially remained unchanged (U.S. Department of Education, 2000, 2001, 2002).

According to the U.S. Department of Education (2001):

> Asian/Pacific Islander students were . . . underrepresented among the students
> served under IDEA [Individuals with Disabilities Education Act]. Hispanic
> students and, to a lesser extent, white (non-Hispanic) overall were also
> underrepresented compared to their relative representation in the estimated
> resident population. However, Black students continued to be overrepresented in
> special education across all disability categories. In addition, the representation of
> American Indian/Alaska Native students with disabilities slightly exceeded their
> representation in the resident population in most disability categories. (pp. 2-28)

The concern about disproportionate representation of students of color has not changed

much in the past 37 years (Artiles & Trent, 1994). Indeed, it remains a "very

controversial, unresolved issue" (Coutinho & Oswald, 2000, p 135). Likewise, the fact of

"disproportionate representation of minority children in special education is no longer in

dispute" (Coutinho & Oswald, 2000, p. 138). An examination of current estimates of

disproportionate representation of students of color in special education programs

illustrates this.

Current Estimates of Disproportionality

A snapshot of the changing demographics provides a background to understand current estimates of disproportionality. Results of the 2000 Census indicated that Latinos have become the largest group of people of color in the United States. While African Americans represented 12.3% of the population, Latinos accounted for 12.5% of the population (U.S. Census Bureau, 2000). Likewise, the racial/ethnic distribution of students in the public schools has reflected this demographic shift. According to the U.S. Department of Education's National Center for Education Statistics (2005), the Latino enrollment of students in kindergarten through twelfth grade surpassed the African American enrollment for the first time in 2002. Of the 48.5 million students who went to public schools during the 2003-2004 school year, American Indian/Alaska Native students constituted 1.2 % of the student population followed by Asian/Pacific Islanders (4.4%), Hispanics (18.5%), Black, non-Hispanics (17.1 %) and White, non-Hispanic (58.7%) (Hoffman & Sable, 2006).

The advent of the twenty-first century saw the continuation of the aforementioned lamentable trend. Disproportionate representation of students of color has continued to be documented. Reports and studies (Donovan & Cross, 2002; Losen & Orfield, 2002; Zhang & Katsiyannis, 2002) continue to document the overrepresentation of African American and Native American children in programs for the emotionally disturbed, mentally retarded, and learning disabled, and the underrepresentation of Asian American and Hispanic American students in these special education programs.

Some 20 years after its first report, *Placing Students in Special Education: A Strategy for Equity,* was published in 1982, Congress again charged the National Research Council (NRC) with a second comprehensive study of disproportionality among students of color. The resulting document was *Minority Students in Special and Gifted Education* (Donovan & Cross, 2002). Findings from the NRC appeared consistent with the data reported by the U.S. Department of Education. Using datasets available from the Office of Special Education Programs (OSEP) and the Office for Civil Rights (OCR), the NRC committee reported the racial/ethnic distribution of students in special education categories. The committee focused their report on the high incidence categories of mild mental retardation (MMR), learning disabilities (LD), and emotional disturbance (ED). Across all disabilities categories, both high and low incidence, Latinos accounted for 13.4% of the population of students with disabilities, but 15% of the overall student population, indicating a slight underrepresentation. Likewise, Latinos have a lower occurrence of ED placement, representing 10% of the students with emotional disturbance. Conversely, Hispanics were slightly overrepresented in the area of learning disabilities, representing 16.5% of the population. The NRC investigators noted, "since there is no significant overrepresentation of [Latinos], the LD category has been of less concern in discussions of disproportionate representation" (p. 48). Finally, Latino students, many of whom are English language learners, represented 12% of the students with speech or language impairments receiving special education, indicating a slight underrepresentation in this disability category when compared to their representation in the general student population. Although, the NRC considered the

disability category of speech and language impairments (SLI) a nonjudgmental category,

it is reported here because of the concern about English language learners in programs

for students with speech and language impairments in districts in the State of Texas.

Unfortunately, the NRC Report did not include, nor did it recommend, research

concerning English language learners and their participation in special education

programs (Katzman, 2003).

Zhang and Katsiyannis (2002) reviewed national and state data provided by the

U.S. Department of Education, including the National Center for Educational Statistics,

and the U.S. Census to "examine minority representation . . . across states and regions

for . . . high incidence disabilities" (p. 185). Their findings were consistent with the

National Research Council's report. Zhang and Katsiyannis (2002) documented

overrepresentation concerns for American Indian/Alaskan Native and African American

students in special education programs for the emotionally disturbed, learning disabled,

and mentally retarded and for the aggregate category of all disabilities. Conversely, they

reported percentage differences between both Asian/Pacific Islanders and Hispanics

when compared to White representation that indicate underrepresentation in the

aforementioned disability categories. Additionally, Zhang and Katsiyannis (2002)

reported multiple comparisons by geographic regions and found:

> A significantly higher percentage of Hispanic students from the North East region
> than from the South region were identified for all disabilities, LD and EBD
> [emotional-behavior disorders]. The percentage of Hispanic students in the North
> East region identified as having EBD was also significantly higher than the
> percentage in the West. (p. 185)

Finally, Zhang and Katsiyannis (2002) recommended a "further analysis of district-level data in understanding minority representation [in special education]" (p. 185). They also asserted:

> District-level data should be available in the future, as IDEA [Individuals with Disabilities Education Act] mandates that states should examine the data to determine if disproportionality based on race is occurring in the identification and placement process. If such a determination is made, states are required to develop corrective action to mitigate such discrepancies. (p. 185)

English Language Learners in Special Education

A major change in the student population over the last decades has been the significant increase in the number of school-age children who speak a language other than English at home (Kindler, 2002). Therefore, an understanding of the demographics of English language learners in the United States frames the discussion of their representation in special education. The U.S. Department of Education's National Center for Educational Statistics (2005) reported "between 1979 and 2003, the number of school-aged children (ages 5-17) who spoke a language other than English at home grew from 3.8 million to 9.9 million, or from 9 percent to 19 percent" (p. 34). Specifically, for grades pre-kindergarten through 12, just over five million English language learners were enrolled in public schools during the 2003-2004 school year, representing approximately 9.2% of the total public school enrollment. More notably, during the 10-year span between 1993-1994 and 2003-2004, the English language learner population grew approximately 65%, while the general school population grew only 9% (National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs, 2005b). In 2001-2002, the overwhelming majority of English language

learners spoke Spanish as their native language, representing 76.9% of the total English language learner population (Hopstock & Stephenson, 2003).

The knowledge base concerning the representational patterns of English language learners receiving special education services is scarce (Artiles, Trent, & Palmer, 2004; Klingner & Artiles, 2003). In fact, English language learners have been neglected in analyses of disproportionate representation in the professional literature (Artiles, Rueda, Salazar, & Higareda, 2005; Katzman, 2003) and accordingly, investigators are calling for research concerning the participation rates of English language learners in special education (Artiles & Ortiz, 2002; Grupp, 2004; Katzman, 2003; Robertson & Kushner, 1994; Zhang & Katsiyannis, 2002). Results from the scant research that does exist document contradictory conclusions. In one study, Zehler et al. (2003) reported an underrepresentation of English language learners receiving special education services, while other researchers have found that English language learners are overrepresented in special education programs (Artiles, Rueda, Salazar, & Higareda, 2002). Additionally, there is preliminary evidence that overrepresentation of English learners in speech/language impairment category may be coming apparent in some states (Artiles, Harry, Reschly, & Chinn, 2002), and that English language learners who lack proficiency in both their native language and English may be heavily overrepresented in special education programs (Artiles, Rueda, Salazar, & Higareda, 2005). This section of the literature review presents research concerning the representation of English language learners receiving special education services.

The language most often spoken by English language learners in the United States is the Spanish language spoken by Latinos (e.g., in 2000, 79% of ELLs in the nation, and 93% of ELLs in Texas spoke Spanish); therefore, there is a tendency in the literature to discuss representation of English language learners in the context of the representation patterns of Latinos. For example, Baca and Cervantes (1998) included a section entitled "Overrepresentation of Bilingual Students in Special Education" in their book *The Bilingual Special Education Interface*. However, in the almost five-page discussion, they cite studies concerning the representational patterns of Latinos, mostly Mexican Americans, in special education classes. The only documentation that Baca and Cervantes cited regarding English language learners is a textbook by Ovando and Collier published in its first edition in 1985. Ovando and Collier (cited in Baca & Cervantes, 1998) noted that the problem of underrepresentation of English language learners might be due to the fact that they are placed in bilingual programs instead of special education. A perusal of the second edition of this textbook entitled *Bilingual and ESL Classrooms: Teaching in Multicultural Contexts* (Ovando & Collier, 1998) revealed the following reference:

> Early exit [from bilingual programs] led to teachers in the grade-level classroom [to assume] something was wrong with the child, resulting in assessment for placement in special education. Overrepresentation of language minority students in special education classes, especially in the category of learning disabilities, is a legacy of these practices, [i.e., early exit based on oral proficiency in English] and unfortunately this placement is still all too common. (p. 252)

Ovando and Collier support this statement with four citations, but none of them are research studies; three references are textbooks and the fourth is a symposium paper.

Finally, Ovando and Collier (1998) stated "overrepresentation and underrepresentation of LM [language minority] students in special education classes are continuing concerns" (p. 49), but only cite the 1970 *Diana v. California* case where English language learners were overrepresented in classes for students with mental retardation.

Other reports and literature ignore English language learners altogether. The National Research Council's (Donovan & Cross, 2002) long awaited, much anticipated, comprehensive report has been criticized for not including "the growing body of work in the field of English language learners and special education . . . nor does it recommend a more concerted effort to expand this body of work" (Katzman, 2003, p. 230). However, some research regarding English language learners' participation rates in special education programs is beginning to emerge.

An in-depth descriptive study concerning English language learners with disabilities was conducted under the auspices of U.S. Department of Education's Office of English Language Acquisition, Language Enhancement, and Academic Achievement of Limited English Proficient Students. Zehler et al. (2003) studied 3,424 schools in 1,315 school districts across the nation. The investigators found evidence of underrepresentation of English language learners in special education programs. Included in their findings were the following:

- There was a 72% increase from 1992 through 2002 in the number of English language learners in public schools. In 2002, 77% of English language learners spoke Spanish.

- Smaller proportions of English language learners than students in the general school population were enrolled in special education programs. In 2002, 13.5% of students from the general population were receiving special education services, while only 9.2 % of English language learners were.

- Smaller proportions of English language learners than students from the general population were reported for each of the disability categories. Table 2.1 shows the data for higher incidence disabilities.

Table 2.1. Percentage of All Students and English Language Learners Receiving Special Education Services in Higher Incidence Disability Categories

Disability	% of all students	% of ELLs
Learning Disabilities	6.6	5.20
Emotional Disturbance	1.0	.23
Mental Retardation	1.2	.72
Speech/Language Impairment	2.7	2.10

Source: From Zehler et al. (2003).

Henderson, Abbot, and Strang (1993) summarized information from state education agencies concerning English language learner populations and the educational services they were receiving during the 1991-1992 school year. They found great variations in placement rates among states of English language learners being served in special education programs, from less than 1% in states like Colorado, Maryland, and

North Carolina to 20.1% in New Mexico; 25.3% in South Dakota, and 26.5% in

Massachusetts. In Texas, 8.3% of English language learners were receiving special

education services during the 1991-1992 school year. Whereas the ELL enrollment for

the resident population in Texas for 1991-1992 was 9.5%, this figure constituted an

underrepresentation of English language learners in special education.

Within states, there also appears to also be great variations in placement rates.

For example, in Texas, Robertson and Kushner (1994) found that English language

learners were up to five times as probable to be in special education programs in one

district as in another. In Illinois, English language learners with disabilities are

underrepresented and underserved at the state level, but Brusca-Vega (2002)

acknowledged that variations might exist at the district level. Two state-level studies,

one from Texas and the other from California, merit in-depth analyses and discussion in

this literature review because of their comprehensiveness and importance to the

understanding of the representation patterns of English language learners in special

education programs. The study from Texas (Johnson, Lessem, Bergquist, Carmichael, &

Whitten, 2002) is examined in the next section of this review. The discussion of the

investigation from California (Artiles, Rueda, Salazar, & Higareda, 2002, 2005) follows.

Artiles, Rueda, Salazar, and Higareda (2002) asserted, "the intersections of

English language learners and special education are little understood" (p. 118). These

researchers noted that when Latinos and other groups are studied at the national level,

Latinos are not overrepresented (e.g., the way that African Americans are); however,

"when the issue of language is added in, the results change and a serious civil rights

issue emerges" (p. 118). With the hopes of adding to this critical knowledge base, Artiles and his colleagues studied 11 urban districts, "heavily populated by English learners, particularly of Latino descent" (Artiles, Rueda, Salazar, & Higareda, 2002, p. 121) in the state of California during the 1998-1999 school year, where 42% of the student population was classified as English language learners. Using the "aggregate of districts as the unit of analysis" (Artiles, Rueda, Salazar, & Higareda, 2002, p. 123), the researchers described the placement patterns of English language learners identified as having mental retardation or a speech/language impairment.

Important results indicated patterns of English language learner representation in special education with regards to grade level, disability category, and language support and special education program. Artiles and his colleagues found that English language learners were overrepresented in special education programs in secondary grades, but not in elementary grades, nor at the district level. Specifically, when data were disaggregated by grade level, English language learners were not overrepresented in grades K-4, but the problem emerged at grade five and remained though grade twelve. "English language learners are 27 percent more likely to be placed [in special education programs] in elementary grades and almost twice as likely to be placed in secondary grades" (Artiles, Rueda, Salazar, & Higareda, 2002, p. 127). When data were examined by disability category, the English learner population was overrepresented at the district level, in both the categories of mental retardation and speech/language impairment. Overrepresentation was not a concern at the elementary level, but English language learners were noticeably overrepresented at the secondary level in the mental retardation and speech/language

impairment categories. The investigators noted "for the MR [mental retardation] category, the situation in secondary classes is dramatic, as English learners are more than three times as likely to be placed in this program" (p. 127). Moreover, the researchers found that "elementary English learners in the straight English immersion program are more than twice as likely to receive RSP [resource specialist program] services than are English learners placed in the modified English immersion model, and almost three times more likely than English learners placed in bilingual programs" (pp. 128-129).

Finally, the probability of being placed in the more restrictive special day class was higher for English learners in straight English immersion programs when compared with English learners in modified English immersion programs and bilingual education programs. Perhaps the most glaring evidence of a disproportionality concern among English language learners' participation rates in special education is that during the five years between 1993-1994 and 1998-1999, there was an increase of 12% in the ELL subgroup of Latinos, but an increase of 345% of Latino ELL students in special education (Rueda, Artiles, Salazar, & Higareda, 2002).

In follow-up study of the same districts for the same year, Artiles, Rueda, Salazar, and Higareda (2005) calculated the risk indices (in addition to the composition indices and odds ratios previously reported) and provided information concerning English language learner representation in the category of learning disabilities. In addition to reporting the previous findings, the researchers found that English language learners were overrepresented in special education programs for learning disabilities at the secondary level. There was overrepresentation of low-socioeconomic status (SES)

English language learners in learning disability programs at all grade levels, as well as the speech/language impairment disability category at the secondary level. Finally, at the conclusion of their research, Artiles and his colleagues again underlined the importance of studying English language learner representation in special education programs using disaggregated data because reliance on national or state data may obscure important local trends.

Disproportionate Representation of Students of Color and English

Language Learners in Special Education Programs: A Texas Study

An understanding of the demographics concerning students of color and English language learners in the State of Texas is essential to understanding the representational patterns of these students in special education. Texas recently became the fourth majority-minority state, with a minority population that comprised 50.2% of its total population as of July 2004 (Caldwell, 2005). However, within its school-age population, the Latino enrollment surpassed the European American enrollment during the 2001-2002 school year, when Latinos comprised 42% of Texas public school enrollment and European American enrollment accounted for 41% of the total student population (Texas Education Agency, 2003). This trend has continued. According to the Texas Education Agency (2004c), over 4.3 million students attended Texas public schools during the 2003-2004 school year. Of these students, 14.3% were African American, 43.8% were Latino, and 38.7% were European American.

During the 2003-2004 school year, Texas identified 660,308 students as English language learners representing 15.3% of its total school population (Texas Education

Agency, 2004c). This figure represented an increase of 4.7% over the English language

learner enrollment during the previous year. In fact, during the 10-year span from 1994-

2004, the English language learner student population increased by 56%, while the total

school enrollment increased by only 14% (National Clearinghouse for English Language

Acquisition and Language Instruction Educational Programs, 2005a). Spanish was the

language most commonly spoken in Texas representing 94% of the school population in

2001-2002 (National Clearinghouse for English Language Acquisition and Language

Instruction Educational Programs, 2002).

The Public Policy Research Institute at Texas A&M University convened a team

of investigators to examine the disproportionate representation of minority students in

special education in the State of Texas (Johnson, Lessem, Bergquist, Carmichael, &

Whitten, 2002). The comprehensive, multicomponent study consisted of five elements:

(a) a review of the professional literature concerning minority representation in special

education from 1968 to 2000, (b) an examination of national and state statistics from the

IDEA database, (c) consideration of views and experiences of stakeholders via focus

group discussions, (d) a survey of experts via email from all 20 Educational Service

Centers (ESCs) across Texas, and (e) an analysis of Public Education Information

Management System (PEIMS) data to further examine the extent and possible variables

underlying the disproportionate representation of minorities in special education across

Texas. The second (Johnson, Lessem, & Bergquist, 2002) and fifth (Carmichael &

Whitten, 2002) components of this report are discussed in depth for purposes of this

review.

Johnson, Lessem, and Bergquist (2002) analyzed data provided by the U.S.

Department of Education via the IDEA database for the 1999-2000 to answer the

questions: "What were the participation rates of minority children [students of color] in

special education reported by Texas?" and "How does Texas compare with the rest of the

nation?" (p. 4). Participation rates for students of color in special education programs in

the State of Texas are summarized in Table 2.2.

Table 2.2. Students of Color in Special Education Programs in the State of Texas

Disability	% of Students
All Disabilities	54.74
Learning Disabilities	58.60
Emotional Disturbance	47.75
Mental Retardation	67.74
Speech/Language Impairment	48.67

Note. Percentage of students of color in the general school population was 53.32.
Source: From Johnson, Lessem, & Bergquist (2002).

The 1.42% overrepresentation rate observed for students of color in all disability

categories "stood in stark contrast to double-digit disparities noted for several other

states" (Johnson, Lessem, & Bergquist, 2002, p. 22). Additionally, Texas data revealed

mild overrepresentation for special learning disabilities (+5.28%), mental retardation

(+14.08%); and likewise mild underrepresentation for speech/language impairments (-

4.85%) and emotional disturbance (-5.57%). However, if the 10% formula proposed by Chinn and Hughes (1987) is applied to the data in Table 2.2, it is noted that with respect to the percentage of students of color in special education programs, Texas showed an overrepresentation problem in the area of mental retardation, but fell within the acceptable range regarding the other disability categories.

Johnson, Lessem, and Bergquist (2002) disaggregated data according to five race/ethnicity categories: American Indian/Alaskan Native, Asian/Pacific Islander, African American, Hispanic, and White. The authors noted that in Texas, as in most of the nation, overrepresentation of African American, especially in programs for mental retardation, was a serious concern. Pertinent to this review of the literature were the results of Latino students. Table 2.3 summarizes the participation rates for Texas Latino students in special education programs for the year of Johnson and his colleagues' study (2002), and the most recent data available from the U.S. Department of Education's (2005) 25th Annual Report to Congress for the 2000-2001 school year.

Regarding Latinos identified as having disabilities, the researchers found a slight underrepresentation of Latinos identified as having speech/language impairment, but more underrepresentation of Latino students identified as having an emotional disturbance. Indeed, Texas had the fourth largest disparity in the nation. However, the authors concluded the discussion of their study in the following way: "Texas was not marked by extreme anomalies [when their representational patterns were compared to that of other states]," and noted, "it was particularly important to review school district level information on these same issues" (Johnson, Lessem, & Bergquist, 2002, p. 22).

Table 2.3. Latino Students in Special Education Programs in the State of Texas

Disability	% of Students 1999-2000	% of Students 2000-2001
All Disabilities	35.80	37.99
Learning Disabilities	39.89	42.40
Emotional Disturbance	33.30	27.13
Mental Retardation	36.18	36.62
Speech/Language Impairment	25.92	36.58

Note. Percentage of Latino students in the general school population was 37.5.
Sources: From Johnson, Lessem, and Bergquist (2002) and U.S Department of Education (2005).

Carmichael and Whitten (2002) used Public Education Information Management System (PEIMS) data available for each student in the State of Texas to further examine representational patterns of students of color. The researchers investigated whether individual or district-level characteristics influenced the probability that students of color would be identified as having a disability. Individual student characteristics included ethnicity, gender, "at-risk" designation, income status, English proficiency, and immigrant/migrant status. District-level variables included "characteristics of the student body (size, ethnicity, TAAS passing rates, and attendance rate), characteristics of the teaching staff (ethnic composition, qualifications, and experience, and district characteristics (wealth, instructional expenditures, and geographic location)" (Carmichael & Whitten, 2002, p. 8).

Regarding characteristics that impacted representation of students of color in special education programs at the individual level, Carmichael and Whitten (2002) found a slight underrepresentation of Latinos in special education programs, a difference score of almost 4%. However, there was more pronounced evidence of underrepresentation of Latinos in the special education categories of speech/language impairment (difference score of -6.1%) and emotional disturbance (difference score of -13.1%). Concerning the participation rates of English language learners, the authors found that these students were underrepresented in special education programs (difference score of -4.7%). Additionally, the authors found that ELL designation was the least likely of all the individual risk factors studied to be associated with placement in special education programs. That is, ELLs were significantly less likely to have received special education services than students with no risk factors. English language learners were designated as either bilingual or ESL according to the type of instruction they received to address their second language acquisition concerns. Bilingual status was found to influence placement in special education programs. The proportion of Latino bilingual students enrolled in special education (9.8%) was only half that of the general population (18.4%). Interestingly, this finding held true for English language learners in bilingual programs but not for English language learners in English as a Second Language programs, where their representational patterns were found to be the same as their European American peers. Carmichael and Whitten (2002) noted: "where students are identified as having language barriers, participation in special education drops dramatically" (p. 11). Since 93% of English language learners are Latinos, this finding is consistent with patterns of

underrepresentation of Latinos in special education. The researchers surmised that

language differences might still be the key to the underrepresentation problem

(Carmichael & Whitten, 2002).

Regarding district characteristics that impacted representation of students of color

in special education programs, Carmichael and Whitten (2002) found the following

regarding students of color, and Latinos in particular:

- Teacher ethnicity was the only district characteristic found to be significantly

  related to the placement of students of color in special education. For

  example, in a district with no minority teachers, the likelihood that a student

  would receive special education services is "15.8% for an African American

  student, 13.4% for a White student, and 11.1% for an Hispanic student" (p.

  24). They went on to say that "as the proportion of minority teachers

  increases, the number of students expected to be placed declines to less than

  9% for both minority ethnicities but remains the same for White students" (p.

  24). However, although the probability of placement in special education

  classes for Latino students increases where there are fewer minority teachers,

  Latinos are still dramatically underrepresented.

- The size of the district did not affect the number or ethnicity of students

  receiving special education services.

- Latino enrollment rate of the district did not correlate with students'

  placement in special education programs. The team observed, "there was no

  evidence that the proportion of minorities in special education varies as a

result of the proportion of minorities enrolled in the district" (Carmichael &

Whitten, 2002, p. 22).

- The probability of students of colors receiving special education services was

    unaffected by the variables of teacher qualifications, experience, and student-

    teacher ratio.

District wealth, instructional expenditures per student, and district location in the

state were unrelated to the likelihood that students of color would be placed in special

education programs.

Causes of and Factors Related to Disproportionality

in Special Education Programs

Authors have suggested that while there seems to be consensus about the

existence of disproportionality, the causes of disproportionate representation of students

of color and English language learners receiving special education services are less

discernable because of the complexity and disparate discussion that have ensued

(Coutinho & Oswald, 2000). Oswald, Coutinho, Best and Singh (1999) stated, "despite

long-standing public concern, professional debate, and a number of analyses of ethnic

representation in special education, the actual . . . causes of . . . disproportionality are not

understood" (p. 195). Nonetheless, researchers have suggested that disproportionate

representation is linked to poverty (Serwatka, Deering, & Grant, 1995; Wagner, 1995),

the subjectivity of definitions of race, ethnicity, and mild disabilities (Fletcher &

Navarrete, 2003; MacMillan & Reschly, 1998; Patton, 1998), bias within the special

education process, including referral, assessment, and placement (Arnold & Lassmann,

2003; Donovan & Cross, 2002; Heller et al., 1982; Hosp & Reschly, 2003; Losen & Orfield, 2002; Patton, 1998), and "inherent inequities within our educational system that prejudice outcomes for minority students" (Daniels, 1998, p. 41), including inadequate school funding and lack of prepared teachers, (Artiles, 1998; Fletcher & Navarrete, 2003; Hosp & Reschly, 2003; Losen & Orfield, 2002; Patton, 1998). With regards to Latino students, Fletcher and Navarrete (2003) delineated several educational issues, including problems with the definition and diagnosis of learning disabilities, the inability on the part of teachers to accommodate the diverse learning needs of students in the classroom, the inability to differentiate between learning disabilities and underachievement, and the impact of race and poverty on learning, lack of effective bilingual and/or English as a second language instruction, and limitations in the traditional methods of assessing students as factors related to possible misplacement of Latino students in programs for students with learning disabilities.

Although empirical analyses of why disproportionality occurs are few in number (Oswald, Coutinho, Best, & Singh, 1999), several of the previously discussed studies examined possible factors related to the variations in placement rates of students of color in special education programs. For example, Dunn (1968) noted that that segregated classes for students with mild mental retardation were overwhelming composed of students from "low-status backgrounds" (p. 6). With regards to Latino enrollment in classes for mild mental retardation, Finn (1982) found that the six states with the highest proportions of Latino students (Arizona, California, Colorado, New Mexico, New York, and Texas) varied greatly in the degree of disproportion of Latino students in classes for

students with mild mental retardation. However, in each of these states, there was a number of districts where Latinos accounted for 70% or more of the student body. In these districts, there was a high overrepresentation of Latinos identified as students with mental retardation. For example, "in Texas the disproportion is relatively large [overrepresentation] in all districts with 10 percent or more Hispanic students and small among districts with smaller Hispanic enrollments" (Finn, 1982, p. 368). Additionally, after further analyses of the data, Finn (1982) found that "districts with the highest disproportion levels have the smallest proportion of students in bilingual programs. It is possible that Hispanic students with poor English proficiency are misclassified as EMR when bilingual programs are not available" (p. 372). Interestingly, years later, Zehler et al. (2003) found that variations existed across districts in the identification of English language learners needing special education services. They found that districts with 99 or fewer English language learners identified an average of 15.8% of their ELLs for special education programs, while districts with 100 or more ELLs identified a lower average of 9.1% of ELLs for placement in special education programs. Finally, the reader is reminded of the discussion in the previous section of this review of individual and district-level characteristics that were related to disproportionality in the State of Texas (Carmichael & Whitten, 2002).

Studies by Coutinho, Oswald, and their colleagues (Coutinho & Oswald, 1998, Coutinho, Oswald & Best, 2002; Coutinho, Oswald, Best, & Forness, 2002; Oswald & Coutinho, 1995; Oswald, Coutinho, Best, & Nguyen; 2001; Oswald, Coutinho, Best, Singh, 1999) began to look at the issue of disproportionate representation of students of

color in special education as well as possible variables that were related to placement. In research concerning state and economic variables associated with the identification of placement of students with serious emotional disturbance, one of the variables included in the study was the percentage of enrollment in public elementary and secondary schools (at the state level) that was White. Although the percentage of the state's school population that was White was "unrelated to the rate of identification of students with SED [serious emotional disturbance]" (Oswald & Coutinho, 1995, p. 226), Oswald and Coutinho called for further study to understand the complex influences that contribute to disproportionality in special education.

In a subsequent article, Coutinho and Oswald (1998), using data from the 1992 and 1994 Elementary and Secondary Civil Rights Compliance Report, found the relative risk proportion for African Americans identified as serious emotional disturbance to be 1.55 and 2.63 for mild mental retardation, meaning that African Americans were one-and-a-half times more than likely than non-African Americans to be identified as having a serious emotional disturbance and more than two-and-a-half times more likely to be identified as having mild mental retardation. Coutinho and Oswald (1998) delineated a research agenda that would investigate two proposed hypotheses that might account for the disproportionate numbers of students of color receiving special education services. First, they suggested, "ethnic groups are differentially susceptible to educational disability" (Coutinho & Oswald, 1998, p. 68), and/or "special educational assessment relies on instruments and processes that (a) contain cultural and linguistic loading and (b) measure and interpret the ability, achievement, and behavior of students differently

across ethnic groups" (Coutinho & Oswald, 1998, p. 69). Trying to shed some light on

hypothesis one, the researchers constructed regression models using the relative risk

proportions as response variables and various school-related demographic and fiscal

variables as predictors (i.e., student race, percentage of total school district expenditures

used for salaries, percentage of students in district who were African American, median

value of housing in district, and the percentage of children in the district below poverty

level). The investigators found that all five variables predicted the probability of African

American students being identified as having a serious emotional disturbance or mild

mental retardation. Coutinho and Oswald (1998) noted: "an important finding was that a

race effect remained after the effects of poverty, percentage spent on salary, percentage

of African-American children in the school district, and the median value of the

households in the community were covaried out" (p. 68).

In a subsequent investigation, Oswald, Coutinho, Best, and Singh (1999) again

examined the representational patterns of African Americans identified as having a

serious emotional disturbance or mild mental retardation and the extent to which

environmental variables (median value housing, median income, percentage of children

below poverty, percentage of children at risk, dropout rate, percent of children not

proficient in English, and percent of African Americans students) were linked with their

representation in special education programs. The researchers found that "all of the

environmental variables were significantly related to the probability of being in an SED

program and the probability of being in an MMR program" (p. 199). Additionally, in

school districts with "few African American students, African American students

compared to non-African American students were much more likely to be identified as SED, particularly in low-poverty communities" (Oswald, Coutinho, Best, & Singh, 1999, p. 202).

In a series of articles, Coutinho, Oswald and their colleagues expanded their research to include other groups of students of color and the issue of their identification as students requiring special education services for serious emotional disturbance, mental retardation and specific learning disabilities (Coutinho, Oswald, & Best, 2002; Coutinho, Oswald, Best, & Forness, 2002; Oswald, Coutinho, Best, & Nguyen, 2001). The sample included 4,149 schools districts with over 24 million students. The researchers used five ethnicity categories (Asian/Pacific Islander, American Indian, Hispanic, Black, and White) and two gender categories (male, female) to yield 10 response variables. Nine sociodemographic variables (student-teacher ratio, per pupil expenditure, median housing value, median income, percentage of children in poverty, percentage of enrolled children identified as at-risk, percentage of children who were not White, percentage of community adults who had no diploma, and percentage of enrolled students who were limited English proficient) were used as predictor variables. In their analyses, the investigators utilized logistic regression models to ascertain the probability of a student being classified as having mental retardation, a serious emotional disturbance, or a learning disability as a function of gender, ethnicity, and sociodemographic predictors. Table 2.4 summarizes the odds ratios from the three articles. The comparison group was White female where the odds ratio is set at 1.0.

Table 2.4. Odds Ratios for Students of Color Identified as Having Mental Retardation,
Learning Disabilities, or Emotional Disturbance Group

	MR	*LD*	*ED*
White-Male	1.36	2.28	3.81
Black-Female	2.0	2.98	1.38
Black-Male	3.26	2.34	5.53
Hispanic-Female	.70	1.02	.59
Hispanic-Male	.95	2.10	2.35

Note. MR is mental retardation, LD is learning disabilities, and ED is emotional
disturbance
Source: From Coutinho, Oswald, and Best (2002); Coutinho, Oswald, Best, and Forness
(2002); Oswald, Coutinho, Best, and Nguyen (2001).

As noted in Table 2.4, with the exception of African American females, Blacks

are overrepresented in all high incidence disability categories. Hispanic males are more

than twice as likely as White females to be identified as having either learning

disabilities or an emotional disturbance, but slightly less likely to be identified with

mental retardation. In contrast, female Hispanic students are almost half as likely to be

identified as having an emotional disturbance as compared to White females. They are

also less likely to be identified as having mental retardation than their White peers.

Oswald, Coutinho, Best, and Nguyen (2001) noted "[the] data starkly represent the

extent of the problem of disproportionality in mental retardation [and learning

disabilities and emotional disturbance] identification across gender and ethnic groups"

(p. 358).

With regards to the predictor variables, Oswald and colleagues found that generally the variables of student-teacher ratio, poverty, at-risk, non-White, and no diploma were positively correlated to identification rates for mental retardation and negatively correlated to per pupil expenditure, housing, income, limited English proficient at statistically significant level. For learning disabilities and emotional disturbance, the overall "relationships between LD identification and predictor variables for the individual gender/ethnicity groups were mixed in terms of strength and direction" (Coutinho, Oswald, & Best, 2002, p. 54). The same was true for the relationships between ED and predictor variables (Coutinho, Oswald, Best, & Forness, 2002).

Critical Theory as a Theoretical Framework for Understanding

Disproportionate Representation in Special Education

Overview of Critical Theory

Critical theory refers to the theoretical foundation developed by a group of writers connected to the Institute of Social Research at the University of Frankfurt in Germany during the first decades of the 20th century. Early critical theorists, including Max Horkheimer, Theodor Adorno, Herbert Marcuse, and Jürgen Habermas, based their ideas on the analysis of the metamorphoses of the domination that accompanied the changing nature of capitalism and subsequent injustice and subjugation in a post World War I world. They utilized the philosophical underpinnings of Marx, Kant, Hegel, and Weber to formulate the idea of a society where all people have political, economic, and cultural control of their lives (Kincheloe & McLaren, 2000; Tripp, 1992). This goal could be achieved through "*emancipation*, a process by which oppressed and exploited

people became sufficiently *empowered* to transform their circumstances for themselves

by themselves" (Tripp, 1992, p. 13). The term "'critical theory'" [envisioned] "the route

to emancipation as being a kind of self-conscious critique which problematises all social

relations, in particular those of and within the discursive practices of power" (Tripp,

1992, p. 14). During the past 40 years, many scholars have seen critical theory as a

method of temporarily freeing academic work from the "domination emerging from a

post-Enlightenment culture nurtured by capitalism" (Kincheloe & McLaren, 2000, p.

280). These academicians believed that a transformation of the social sciences could

eventually lead to a more egalitarian and democratic society.

Kincheloe and McLaren (2000) have suggested that a precise definition of critical

theory is difficult because "(a) there are many critical theories, not just one; (b) the

critical tradition always changing and evolving; and (c) critical theory attempts to avoid

too much specificity, as there is room for disagreement among critical theorists" (p. 303).

However, they defined criticalist as "a researcher or theorist who attempts to use her or

his work as a form of social or cultural criticism and who accepts certain basic

assumptions" (Kincheloe & McLaren, 2000, p. 304). These basic assumptions include:

> That all thought is fundamentally mediated by power relations that are social and
> historically constituted; that facts can never be isolated from the domain of values
> or removed from some form of ideological inscription; that the relationship
> between concept and object and between signifier and signified is never stable or
> fixed and is often mediated by the social relations of capitalist production and
> consumption; that language is central to the formation of subjectivity (conscious
> and unconscious awareness); that certain groups in any society and particular
> societies are privileged over others . . . ; that oppression has many faces and that
> focusing on only one at the expense of others . . . often elides the
> interconnections among them; and, finally, that mainstream research practices are

generally, although most often unwittingly, implicated in the reproduction of
systems of class, race, and gender oppression. (p. 304).

Three of the aforementioned tenets are pertinent to the discussion of the disproportionate

representation of students of color, and in particular of English language learners, in

special education. These include the idea that (a) certain groups in society are privileged

over others, that (b) oppression takes many forms, and that (c) many conventional

research practices are implicated in the reproduction of systems that oppress individuals

of color. Each of these principles will be discussed in relation to the disproportionate

representation of students of color and English language learners in special education.

Privileged Groups in Society

The dominant culture in the United States has been identified as White, Anglo-

Saxon, Christian, middle-class, male, English-speaking, and heterosexual. Most

members of the dominant group do not think of themselves as privileged, nor do they see

themselves as oppressors of others (Gollnick & Chinn, 2006). Hegemony refers to the

way that members of the privileged culture maintain their dominance over oppressed

groups through the cultural agencies that they control, that is, social, political, economic,

and educational systems (Gall, Gall, & Borg, 1999). In particular, with regards to the

educational system, critical theorists have argued that public schools reproduce the social

and cultural inequalities found in society. For example, Bowles and Gintis (1976) wrote:

> The structure of social relations in education not only inures the student to the
> discipline of the workplace, but develops the types of personal demeanor, modes
> of self-presentation, self-image and social class identifications, which are the
> crucial ingredients of job adequacy. Specifically, the social relationships of
> education—the relationships between administrators and teachers, teachers and

students, and students and students, and students and their work—replicate the hierarchical divisions of labor. (p. 131)

Patton (1998) has vehemently argued, using the critical theory perspective, that education, and therefore, special education is "grounded in structured power relationships . . . designed to serve the interests of the dominant social, political and economic classes and to place African Americans in a disvalued position [i.e., special education classes]" (p. 27). Patton noted that the historical and sociopolitical roots of the disproportionate numbers of African Americans receiving special education services predate the field of special education, and can be traced back to the enslavement of Africans in the United States beginning in 1619. Furthermore, Patton (1998) asserted, the present reality of the disproportionate representation of African Americans in special education classes "perpetuates this sociohistorical legacy by allowing the general and special education enterprise to continue the creation of programmatic and classroom arrangements that jeopardize the life chances of large numbers of African American youth" (p. 25). Tomlinson (1988) concurred:

> The most noticeable feature of most recipients of "special education" . . . is that they are predominately the children of those who are socioeconomically weaker or are the children of ethnic minorities. From this view-point, special education does seem to be in the business of reproducing—socially, culturally, economically—lower status and dependent members of society for another generation at least, and of legitimating the subsequent differential social and economic treatment of a large group of citizens. (p. 79)

The fact that the disproportionate representation of students of color receiving special education services is still an unresolved issue after so many years "fuels suspicion that special education has been used as a tool of discrimination or as a means

of separating racial and ethnic minorities from the majority" (Hardman, Drew, & Egan, 2005, p. 117). Patton (1998) reasoned, "concerns about racial discrimination and violations of civil rights are raised when African American youth are consistently misidentified and disproportionately placed in special education programs" (p. 25).

The Many Faces of Oppression

Oppression of individuals of color in U.S. society has many faces. In order to better understand and fight oppression, critical theorists seek to understand the intersection and interconnectedness of all forms of oppression (Gall et al., 1999). For example, with regards to Latinos and English language learners, Artiles, Rueda, Salazar and Higareda (2002) noted that when Latinos and other groups are studied at the national level, Latinos are not overrepresented (e.g., the way that African Americans are); however, "when the issue of language is added in, the results change and a serious civil rights issue emerges" (p. 118). Unfortunately, the increasing diversity in the student population, "especially more language diversity, [has] been regarded as a problem and this narrow view has contributed to the construction of inequalities in our educational system" (Artiles, Trent, & Palmer, 2004, p. 716). Likewise, inequitable practices and policies in our society and schools have served to perpetuate poverty and negatively affect the quality of instruction for students of color in school (Artiles, Trent, & Palmer, 2004). Additionally, Artiles and his colleagues noted that

> Many students, because of race, language, or lower socioeconomic status, continue to fail at a rate that is significantly higher than for White students. Moreover, many of these students are referred, placed and served in special educational programs at a disproportionately higher level than White students. (p. 716)

Using critical theory as a framework for understanding the representational patterns of

English language learners in special education allows the researcher to examine the many

faces of oppression, including race/ethnicity, language, gender, and social class.

Conventional Research Practices

Kincheloe and McLaren (2000) noted that positivism has guided the majority of

research in education. Positivist research rests on assumptions about truth that have been

accepted as universal, but which, according to critical theorists have served to maintain

the oppression of historically marginalized groups. For example, positivist research

views Latino as a monolithic category, when there is much within-group diversity (Nieto,

2004). Hence, positivist research is satisfied with national and state data that report

underrepresentation of Latinos in special education programs (Donovan & Cross, 2002;

Johnson, Lessem, Bergquist, Carmichael, & Whitten, 2002; Zhang & Katsiyannis, 2002)

and discussions in the literature that consider English language learners' participation in

special education in the context of the representational patterns of Latinos (Baca &

Cervantes, 1998). Additionally, positivists seem complacent with the amount of limited

research concerning the representational patterns of English language learners in special

education (Artiles, Rueda, Salazar, & Higareda, 2005; Katzman, 2003; Klingner &

Artiles, 2003) when school districts that have large numbers of Latinos and English

language learners are seriously concerned about how many of them are being placed in

special education classes (Tracy Cartas, personal communication, May 15, 2005).

Critical theorists, however, are not so easily appeased and would insist on disaggregating

data concerning English language learners from state and national databases in order to

ascertain exactly what the representational patterns of English language learners are.

Furthermore, critical theorists would be interested in knowing if the disproportionate

number of English language learners receiving special education services is a

discriminatory manifestation of the "role played by schools and the special education

system in maintaining the existing social and economic stratification order" (Patton,

1998, p. 27).

Summary of Literature Review

Changing demographics in our nation has brought with them increased diversity

in the public schools. With increased diversity is the concern of disproportionate

representation of students of color in special education programs. Disproportionality is

an issue that has been at the forefront of discussions and research in education for the

past four decades. The literature review presents a clear picture of patterns of

disproportionality for some group of students of color (e.g., African American students,

especially males, in the disability categories of mental retardation and emotional

disturbance), but somewhat less clear trends for other groups, especially Latinos and

English language learners. Additionally, the intersection of disproportionate

representation and the variables that are related to possible placement of students of

color in special education programs are not fully understood. Finally, there is an urgent

need to understand why this phenomenon continues to happen in our schools.

Understanding disproportionality from a critical theory perspective may be instrumental

in formulating solutions to this problem.

The results of the research conducted in Texas are surprising against the backdrop of recent measures taken by the State of Texas to make districts accountable for disproportionate representation of students of color in programs for students with disabilities (i.e., the implementation of the Special Education Data Analysis System and, as recently as the school year 2004-2005, the Performance-Based Monitoring Analysis System). Given the high percentage of Latino students and English language learners in certain districts in the State of Texas, especially in South Texas, the need for a study to better understand representation of English language learners in special education programs is apparent and warranted.

CHAPTER III

METHODOLOGY

This chapter provides the methodology utilized in this study to answer the following research questions:

1. What are the representational patterns of English language learners receiving special education services in South Texas?

2. What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas?

Research Design

This investigation was a quantitative study that utilized descriptive and correlational statistics. Descriptive research "involves the collection and analysis of quantitative data in order to develop a precise description of a sample's behavior or personal characteristics" (Gall et al., 1999, p. 173). In this study, composition and risk indices, as well as relative risk ratios, were used to describe the representational patterns of English language learners in special education programs across South Texas school districts. Correlational research allowed the researcher to "determine whether, and to what degree, a relationship exists between two or more quantifiable variables" (Gay & Airasian, 2000, p. 321). The correlation coefficients generated by the data collected in this study allowed the researcher to document possible relationships between relative risk ratios and six school district characteristics, including total student enrollment, percentage of poor/underserved students, percentage of Latino students, percentage of

English language learners, percentage of Latino teachers and percentage of students in bilingual/English as a second language programs.

Population

In 1967, under the authorization of the Texas Legislature, the State Board of Education divided the State of Texas into 20 regions, each having its own Education Service Center (ESC), which serves school districts within defined boundaries. The job of the ESCs is to provide training and technical assistance to districts in a variety of areas, including special education ("History of," n.d.). Figure 3.1 shows the Education Service Center Regions. The population for this study consisted of school districts located in three Education Service Center Regions (N=130). These are ESC Region I (N=38), ESC Region II (N=42), and ESC Region XX (N=50). This area is defined as South Texas for the purpose of this investigation. The rationale for conducting a study of this population is discussed further.

Over 4.3 million students were educated during the 2003-2004 school year in 1040 school districts across the State of Texas. From the largest district, Houston Independent School District (ISD) in ESC Region IV on the Gulf Coast with 211,157 students to San Vicente ISD in ESC Region XVIII in West Texas with an enrollment of 19 students, Texas is a state with much diversity in terms of district size (See Figure 3.1). Likewise, there is diversity in terms of student population, even within the same Education Service Centers. For example, in ESC Region XIII, Round Rock ISD is 71% European American, 13% Latino, and 8.2% African American (Texas Education Agency, 2004a). In contrast, Pflugerville ISD, also located in ESC Region XIII, is more

diverse with 41% White, 30% Latino, 21% African American, and 8% Asian American.

Such vastness and diversity makes investigating the issue of disproportionality a

challenge in Texas.
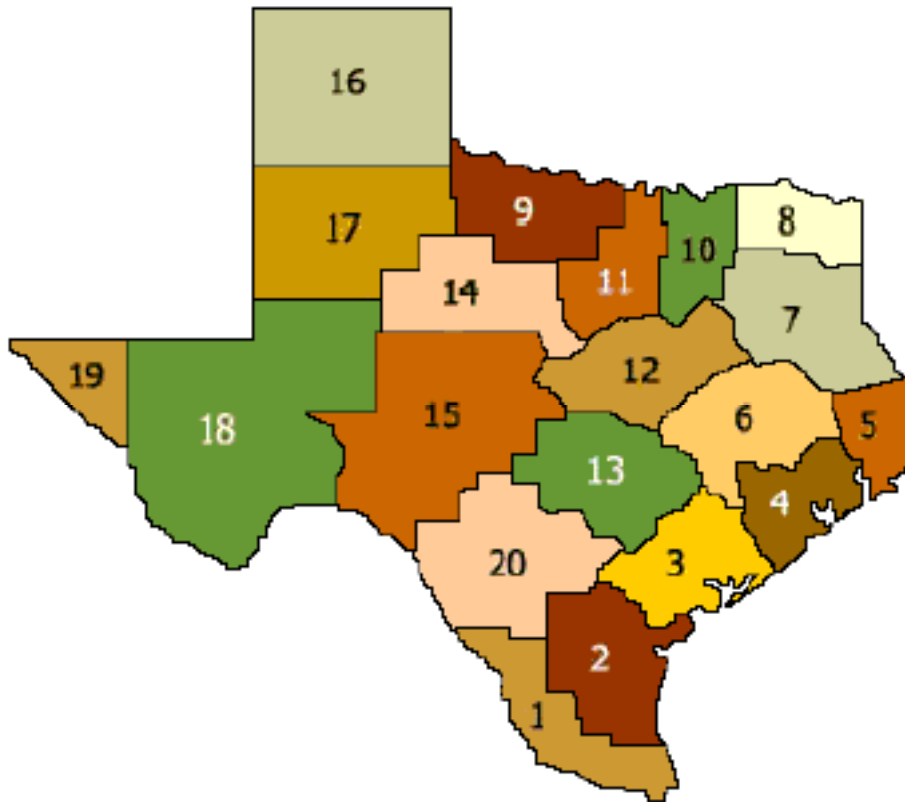
Figure 3.1. Education Service Center Regions in the State of Texas.

Many researchers are calling for an in-depth analysis of disproportionate

representation at the district level (Artiles, Rueda, Salazar & Higareda, 2005; Donovan

& Cross, 2002; MacMillan & Reschly, 1998; Zhang & Katsiyannis, 2002) because state

data may overlook alarming trends for overrepresentation of students of color (Losen &

Orfield, 2002). Donavon and Cross (2002) stated, "national data do not reflect the wide

variability at the level of individual states and school districts" (p. 67). This may be

especially true for English language learners identified as students with disabilities.

Artiles, Rueda, Salazar, and Higareda (2002) claimed that the intersection of English

language learners and special education is not well understood or researched. Since the

number of Spanish-speaking students is growing quickly, there is a critical need for basic

research that examines issues that may be obscured when data are aggregated at the state

and national levels. Analyzing districts in South Texas (where Latino and English

language learner populations are high in number) for disproportionate representation of

English language learners in special education programs is critical for understanding the

disproportionality issue in the State of Texas. Therefore, the population chosen for this

study was South Texas, defined as districts in ESC Regions I, II, and XX. Table 3.1

summarizes the characteristics of the population for this study.

Table 3.1. Characteristics of Texas and Education Service Centers Regions I, II, and XX

Characteristics	State	Region I	Region II	Region XX
Enrollment	4,311,502	340,361	106,865	349,126
Latino Students	43.8	96.3	68.1	65.5
ELLs	15.3	39.3	6.4	10.2
Poor	52.8	84.6	59.0	61.0
Latino Teachers	18.8	81.2	42.2	34.2
Bil/ESL	14.1	37.2	5.6	8.9

Note. All numbers are in percentages. *ELLs* means enrollment of English language learners.
Poor means enrollment of poor/underserved students. *Bil/ESL* means enrollment of students in
bilingual or English as a second language programs.
Source: Texas Education Agency (2004b).

During the 2003-2004 school year, as noted in Table 3.1, the percentage of Latino students enrolled in each of the regions in the study was above the state average of 43.8%. Additionally, the three regions in the study had higher averages than the state for poor/underserved students and Latino teachers. Finally, the total student enrollment for the regions in the study was 796,352 students, which accounted for 18.5% of the total enrollment for the State of Texas (Texas Education Agency, 2004b).

Twenty of the districts, two in ESC Region I, nine in ESC Region II, and nine in ESC Region XX, had to be eliminated from the originally defined population because data for students identified as English language learners and/or special education students were not available due to the masking of reports in order to comply with the Family Educational Rights and Privacy Act (Texas Education Agency, 2005). Data were masked if the number of special education students or English language learners was less than five, or if the number of English language learners identified as special education students was less than three (B. Pena, personal communication, March 30, 2004). The final number of districts included in the study is presented in Table 3.2.

Table 3.2. Districts Included in Final Sample

Total	Region I $f(\%)$	Region II $f(\%)$	Region XX $f(\%)$
110	36 (94.7)	33 (78.6)	41 (82.0)

Note. f= frequency.

As noted in Table 3.2, the final number of districts comprising the sample of the study was 110. This constituted 94.7% of the districts from ESC Region I (N=36), 78.6% of the districts from ESC Region II (N=33), and 82% of the districts from ESC Region XX (N= 41).

Data Sources

The two data sources used for this research study were *The Performance-Based Monitoring Analysis System 2004-2005* (Texas Education Agency, 2005) and the *Academic Excellence Indicator System* (Texas Education Agency, 2004a). *The Performance-Based Monitoring Analysis System 2004-2005* provided data for each of the schools districts concerning total student enrollment, number of Latinos, number of English language learners, number of special education students, and number of English language learners who had been identified as having a disability. Data in this report corresponded to the 2003-2004 school year. These data were used to calculate composition indices, risk indices, and relative risk ratios for the population.

The *Academic Excellence Indicator System* (Texas Education Agency, 2004a) was used to provide additional data concerning the district characteristics of percentage of Latino teachers, percentage of poor/underserved students and percentage of students enrolled in bilingual/English as a second language programs. Data in this report corresponded to the 2003-2004 school year. The data were used in the correlational part of the study.

Data Collection

During data collection, the researcher adhered to the following steps:

1. Texas school districts with unmasked data (N=110) in ESC Region I (N=36), ESC Region II (N=33), and ESC Region XX (N=41) were identified.

2. Data were obtained from the Performance-Based Monitoring Analysis System from the Texas Education Agency for the districts defined in step one concerning total student enrollment, number of English language learners, number of special education students, and number of English language learners who had been identified as having a disability.

3. Data were obtained from the *Academic Excellence Indicator System* from the Texas Education Agency for the districts defined in step one concerning the district characteristics of percentage of Latino teachers, percentage of poor/underserved students, and percentage of students enrolled in bilingual/English as a second language programs.

Data Entry

1. Using an Excel spreadsheet, data obtained in step two and formulas were entered to calculate composition indices (percent of disability category by ethnic group), risk indices (percent of ethnic group in disability category), and relative risk ratios for each of the districts in the population. Researchers have stressed the importance of calculating multiple indicators to "gain a more complete understanding of [representational] patterns (Artiles, Trent, & Palmer, 2004, p. 722), and to "allow a school or district to understand better the magnitude and nuances of placement patterns" (Artiles, Rueda, Salazar, & Higareda, 2005, p. 298). The U.S. Office of Special Education Programs (2003) used the following three formulas:

Formula One:

Composition index = number of students of a given racial/ethnic group enrolled in a particular disability category

---

total number of students enrolled in that same disability category

Formula Two:

Risk index = number of students of a given racial/ethnic group enrolled in a particular disability category

---

total enrollment for that racial/ethnic group in the school population

Formula Three:

Relative risk ratio = risk index of one racial/ethnic group

---

risk index of comparison group

Numeric values were substituted in each formula for the groups being studied in each of the districts in the study (N=110) in the following manner:

Formula One:

Composition index = number of English language learners who are special education students

---

total number of special education students

Formula Two:

Risk index= number of English language learners who are special education students

---

total number of English language learners

Formula Three:

Relative risk ratio= risk index of English language learners

---

risk index of non-English language learners

Answers from formulas one and two were multiplied by 100 in order to yield percentages.

2. Using SPSS software, the relative risk ratios calculated in step one and data from the *Academic Excellence Indicator System* concerning total student enrollment, percentage of English language learners, and percentage of Latino students and data from the *Performance-Based Monitoring Analysis System* concerning the percentage of poor/underserved students, percentage of Latino teachers, and percentage of students served in bilingual/English as a second language programs were entered to calculate Pearson product-moment correlation coefficients. This statistic was used to determine the direction and strength of the relationship among relative risk ratios and school district characteristics, including total student enrollment, percentage of poor/underserved students, percentage of Latino students, percentage of English language learners, percentage of Latino teachers, and percentage of students in bilingual/English as a second language programs.

Data Analysis

1. To respond to the first research question: "What are the representational patterns of English language learners receiving special education services in South Texas?" composition indices, risk indices, and relative risk ratios were reported for each of the districts in the study. Firstly, composition indices indicated what percent of students with disabilities were English language learners in each of the districts in the study. Secondly, risk indices indicated what percent of English language learners were identified as having a disability in each of the districts in the study. Finally, relative risk ratios indicated to what extent being an English language learner affected the probability

of being identified as a student having a disability in each of the schools districts in the study.

2. To answer the second research question: "What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas?" Pearson product-moment correlation coefficients each of the districts in the study were calculated in order to describe the direction and strength of the relationship among relative risk ratios and school district variables.

Summary of Research Procedures

Data obtained from the Texas Education Agency were collected and analyzed to determine the composition and risk indices and relative risk ratios in order to describe representational patterns of English language learners in 110 school districts across South Texas. Finally, data were analyzed to determine possible relationships between representational patterns of English language learners in special education programs and characteristics of 110 school districts in South Texas including total student enrollment, percentage of poor/underserved students, percentage of Latino students, percentage of English language learners, percentage of Latino teachers, and percentage of students in bilingual/English as a second language programs.

CHAPTER IV

RESULTS

This chapter discusses the results of the study. Composition indices, risk indices, and relative risk ratios are presented to delineate the representational patterns of English language learners receiving special education services in school districts in South Texas. Then Pearson product-moment correlation coefficients are reported to explain possible relationships between representational patterns of English language learners in special education programs and characteristics of school districts in South Texas.

Research Question One

What are the representational patterns of English language learners receiving special education services in South Texas?

Composition Indices

The composition index reflects the proportion of all students with disabilities who are English language learners (Donovan & Cross, 2002); however, knowing that a certain percentage of students with disabilities are English language learners is meaningless, unless one knows the percentage of the total district enrollment that is identified as English language learners. Additionally, the U.S. Office of Special Education Programs (2003) has recommended the calculation of "relative difference in composition" in order to understand composition indices. Composition indices, the percent of students with disabilities who are English language learners, and their corresponding relative differences within the districts in each of the three regions are summarized in Tables 4.1, 4.2, and 4.3.

For example, as noted with the first district in Table 4.1, 22.1% of the students with disabilities in South Texas ISD were English language learners during the 2003-2004 school year compared to only 3.5% of the students in the district that were ELLs. The relative difference in composition indicated that the percentage of students with disabilities who were English language learners was 525.4% higher than the percentage of English language learners enrolled in the district. The districts are rank-ordered in descending order in order to highlight representational patterns of over-, under- and proportional representation of English language learners in special education programs.

Table 4.1 Composition Indices of English Language Learners in ESC Region I School Districts

District[a]	Composition Index	% District ELLs	Relative Difference[b]
South Texas	22.1	3.5	525.4
Monte Alto	68.6	33.9	102.2
Weslaco	50.0	27.0	85.3
La Villa	68.8	37.7	82.4
Lasara	54.5	30.1	81.1
Zapata	67.7	37.9	78.7
Rio Hondo	23.3	13.1	77.8
Roma	83.3	46.9	77.5
Edcouch-Elsa	73.4	43.0	70.5
Santa Maria	61.9	36.5	69.4
Harlingen	22.1	13.6	63.0
San Perlita	20.6	12.9	59.6
Edinburg	48.5	30.8	57.4
Mission	43.0	27.5	56.3
United	70.4	45.3	55.6
Mercedes	49.7	32.0	55.2
Valley View	82.4	54.3	51.6
Progreso	70.5	47.4	48.7
Rio Grande City	74.7	50.2	48.7
P-SJ-Alamo	59.3	40.0	48.1
Hidalgo	79.9	54.0	47.9
San Isidro	23.7	16.1	46.7
McAllen	52.8	36.1	46.2
Sharyland	35.6	24.8	43.6

Table 4.1 (continued)

District[a]	Composition Index	% District ELLs	Relative Difference[b]
La Joya	**67.7**	**47.6**	**42.2**
Brownsville	**71.2**	**50.1**	**42.2**
Los Fresnos	**36.3**	**26.3**	**37.7**
Donna	**70.2**	**52.3**	**34.2**
San Benito	**33.0**	**25.1**	**31.2**
Laredo	**80.9**	**62.1**	**30.4**
Point Isabel	**34.1**	**28.4**	**20.4**
La Feria	**15.6**	**13.2**	**18.2**
Lyford	**17.9**	**15.3**	**17.4**
Santa Rosa	22.7	23.4	-3.0
Jim Hogg Co.	*10.0*	*13.8*	*-27.6*
Raymondville	*8.8*	*13.1*	*-33.3*

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).
[b]Formula for relative difference is [(Percent of special education students who are ELLs—percent of ELLs enrolled in district)/percent of ELLs enrolled in district] x100 (U.S. Office of Special Education Programs, 2003).

Table 4.2. Composition Indices of English Language Learners in ESC Region II School Districts

District[a]	Composition Index	% District ELLs	Relative Difference[b]
Riviera	**19.0**	**5.9**	**224.4**
Sinton	**7.2**	**2.3**	**208.0**
Orange Grove	**7.9**	**2.7**	**191.3**
Ben Bolt-Palito Blanco	**30.9**	**10.7**	**188.7**
La Gloria	**33.3**	**11.7**	**184.8**
Skidmore-Tynan	**12.9**	**4.6**	**178.5**
Agua Dulce	**11.8**	**4.3**	**174.8**
Calallen	**4.0**	**1.6**	**147.7**
Odem-Edroy	**14.3**	**5.8**	**147.1**
Ricardo	**12.1**	**4.9**	**144.6**
San Diego	**32.3**	**13.3**	**143.3**
Mathis	**13.3**	**5.5**	**139.9**
Benavides	**32.2**	**13.8**	**133.1**
Alice	**10.2**	**4.6**	**122.7**
Taft	**20.1**	**9.4**	**116.1**

Table 4.2 (continued)

District[a]	Composition Index	% District ELLs	Relative Difference[b]
Robstown	**10.6**	**5.4**	**96.7**
Premont	**22.1**	**12.3**	**79.5**
Freer	**5.4**	**3.1**	**78.2**
Bishop	**11.0**	**6.9**	**59.7**
George West	**4.8**	**3.2**	**50.0**
Brooks Co.	**6.9**	**4.6**	**48.9**
West Oso	**11.3**	**8.4**	**34.9**
Kingsville	**12.4**	**10.7**	**16.1**
Flour Bluff	**2.6**	**2.3**	**15.7**
Gregory-Portland	**2.6**	**2.3**	**13.3**
Beeville	**2.2**	**2.0**	**11.9**
Ingleside	4.0	3.9	2.0
Aransas Pass	6.5	7.0	-7.7
Corpus Christi	*7.9*	*8.8*	*-10.5*
Driscoll	*14.3*	*18.0*	*-20.5*
Banquete	*4.0*	*5.1*	*-22.3*
Tuloso-Midway	*2.8*	*4.4*	*-37.3*
Aransas Co.	*2.7*	*4.6*	*-40.4*

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).
[b]Formula for relative difference is [(Percent of special education students who are ELLs—percent of ELLs enrolled in district)/percent of ELLs enrolled in district] x100 (U.S. Office of Special Education Programs, 2003).

Table 4.3. Composition Indices of English Language Learners in ESC Region XX School Districts

District[a]	Composition Index	% District ELLs	Relative Difference[b]
Knippa	**40.0**	**4.9**	**716.7**
La Pryor	**55.6**	**18.9**	**194.4**
Carrizo Springs	**29.1**	**10.0**	**190.8**
Crystal City	**47.3**	**19.2**	**146.7**
La Vernia	**6.8**	**3.0**	**123.6**
Uvalde	**20.3**	**9.2**	**120.7**
Poteet	**12.4**	**5.8**	**113.2**
Lytle	**18.9**	**9.0**	**110.2**
Boerne	**7.5**	**3.7**	**103.8**

Table 4.3 (continued)

District[a]	Composition Index	% District ELLs	Relative Difference[b]
Eagle Pass	**73.3**	**37.5**	**95.3**
Dilley	**17.1**	**9.2**	**86.0**
Pearsall	**21.7**	**11.7**	**85.8**
Charlotte	**10.4**	**5.8**	**79.0**
Medina Valley	**10.1**	**5.7**	**76.5**
Sabinal	**12.9**	**7.5**	**73.2**
Cotulla	**44.4**	**25.6**	**73.1**
Leakey	**13.5**	**7.8**	**72.6**
Floresville	**6.3**	**3.9**	**62.2**
Brackett	**16.5**	**10.3**	**60.1**
Alamo Heights	**7.6**	**5.0**	**52.9**
Jourdanton	**6.9**	**4.6**	**49.3**
Somerset	**12.1**	**8.7**	**38.5**
Ft. Sam Houston	**4.1**	**3.0**	**34.9**
South San Antonio	**22.1**	**17.9**	**23.5**
Northside	**7.3**	**6.1**	**20.2**
Bandera	**3.0**	**2.7**	**11.7**
Southwest	13.8	12.7	8.9
Edgewood	22.0	20.4	8.2
Harlandale	15.2	15.0	1.2
Kerrville	3.8	3.8	0.6
Center Point	7.0	7.0	0.1
Hondo	3.6	3.6	-1.9
Natalia	8.3	8.8	-5.6
San Antonio	15.9	17.0	-6.5
Southside	9.1	9.7	-7.0
East Central	3.7	4.2	-13.4
Devine	2.8	3.4	-17.6
Ingram	6.1	7.4	-17.4
Judson	3.7	4.5	-18.2
Pleasanton	1.4	2.6	-46.1
North East	2.5	4.8	-47.7

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).
[b]Formula for relative difference is [(Percent of special education students who are ELLs—percent of ELLs enrolled in district)/percent of ELLs enrolled in district] x100 (U.S. Office of Special Education Programs, 2003).

As noted in Table 4.1, composition indices for school districts in ESC Region I

indicated that 33 (91.7%) of the 36 school districts had an overrepresentation of English

language learners in special education programs. Additionally, two school districts

(5.5%) showed composition indices that indicated an underrepresentation of ELLs

receiving special education services, while only one (2.8%) district demonstrated

numbers of ELLs in special education programs that were proportional to English

language learners' enrollment in the district. In ESC Region II, 26 (78.8%) of the 33

districts demonstrated overrepresentation of English language learners in special

education programs, while five (15.2%) of the districts reported underrepresentation, and

two (6 %) districts demonstrated proportional representation. In ESC Region XX, 26

(63.4%) of the 41 districts had an overrepresentation of English language learners in

special education programs, while six (14.6%) of the districts depicted

underrepresentation, and nine (22%) districts revealed proportional representation.

Risk Indices

The risk index indicates the percentage of English language learners receiving

special education services (Donovan & Cross, 2002). The risk index is rendered

understandable when compared to the percentage of students in the district receiving

special education services. Tables 4.4, 4.5, and 4.6 summarize the risk indices and

percentage of students in each district that received special education services for each of

the three regions in the study. For example, in South Texas ISD, located in ESC Region

I, 41.9% of English language learners received special education services during the

2003-2004 school year, whereas only 6.7% of the general student population received

special education services. The risk indices are rank-ordered in descending order in order

to highlight trends in representational patterns of English language learners receiving

special education services.

Table 4.4. Risk Indices of English Language Learners in ESC Region I School Districts

District[a]	Risk Index	% District SPED
South Texas	**41.9**	**6.7**
Rio Hondo	**28.4**	**16.0**
San Isidro	**22.0**	**15.0**
San Perlita	**21.9**	**13.7**
Monte Alto	**20.6**	**10.2**
United	**19.6**	**12.6**
Rio Grande City	**19.0**	**12.8**
Brownsville	**18.2**	**12.8**
Zapata	**18.2**	**10.2**
Laredo	**17.7**	**13.6**
La Villa	**17.0**	**9.3**
Weslaco	**17.0**	**9.2**
Harlingen	**16.7**	**10.2**
Edcouch-Elsa	**16.5**	**9.7**
Los Fresnos	**16.2**	**11.8**
San Benito	**15.7**	**12.0**
La Joya	**15.0**	**10.5**
Valley View	**14.8**	**9.8**
Roma	**14.7**	**8.3**
Edinburg	**14.4**	**9.1**
Mercedes	**13.9**	**8.9**
Point Isabel	**13.5**	**11.2**
Donna	**12.9**	**9.6**
Santa Rosa	12.5	12.8
P-SJ-Alamo	**12.8**	**8.7**
Lasara	**12.4**	**6.8**
Lyford	**12.2**	**10.4**
Santa Maria	**11.8**	**7.0**
McAllen	**11.5**	**7.8**
Sharyland	**11.5**	**8.0**
La Feria	**11.0**	**9.3**
Jim Hogg Co.	*10.8*	*14.9*
Mission	**9.8**	**6.3**
Hidalgo	**9.3**	**6.3**
Progreso	**9.3**	**6.3**
Raymondville	*7.3*	*10.9*

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).

Table 4.5. Risk Indices of English Language Learners in Region II School Districts

District[a]	Risk Index	% District SPED
Sinton	**44.0**	**14.3**
Riviera	**40.0**	**12.3**
Skidmore-Tynan	**39.4**	**14.1**
Taft	**35.3**	**16.4**
Orange Grove	**34.1**	**11.7**
Robstown	**31.9**	**16.2**
Ben Bolt-Palito Blanco	**31.8**	**11.0**
Calallen	**31.7**	**12.8**
Agua Dulce	**28.6**	**10.4**
Benavides	**28.4**	**12.2**
Premont	**28.4**	**15.9**
La Gloria	27.3	9.6
Ricardo	**26.9**	**11.0**
Mathis	**25.7**	**10.7**
Alice	**25.0**	**11.2**
San Diego	**24.9**	**10.2**
Odem-Edroy	24.3	9.8
Brooks Co.	**23.7**	**15.9**
Bishop	**22.0**	**13.7**
Freer	**17.9**	**10.0**
Kingsville	**17.2**	**14.9**
West Oso	**16.9**	**12.5**
George West	**16.2**	**10.8**
Aransas Pass	15.5	16.8
Flour Bluff	**14.8**	**12.8**
Corpus Christi	*12.6*	*14.1*
Gregory-Portland	**13.4**	**11.8**
Ingleside	13.0	12.8
Beeville	**12.2**	**10.9**
Driscoll	*9.4*	*11.9*
Banquete	*9.3*	*12.0*
Aransas Co.	*9.2*	*15.4*
Tuloso-Midway	*7.4*	*11.9*

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).

Table 4.6. Risk Indices of English Language Learners in ESC Region XX School Districts

District[a]	Risk Index	% District SPED
Knippa	**50.0**	**6.1**
Leakey	**31.8**	**18.4**
Poteet	**31.6**	**14.8**
La Vernia	**30.1**	**13.5**
Carrizo Springs	**29.7**	**10.2**
Dilley	**28.6**	**15.4**
La Pryor	**27.8**	**9.4**
Charlotte	**26.7**	**14.9**
Crystal City	**26.4**	**10.7**
Sabinal	**26.2**	**15.1**
Lytle	**25.9**	**12.3**
Boerne	**24.6**	**12.1**
Brackett	**24.6**	**15.4**
Uvalde	**24.5**	**11.1**
Medina Valley	**22.1**	**12.5**
Cotulla	**21.8**	**12.6**
Floresville	**21.7**	**13.4**
Ft. Sam Houston	**21.1**	**15.6**
Jourdanton	**19.0**	**12.7**
Pearsall	**18.4**	**9.9**
Northside	**17.6**	**14.7**
Somerset	**17.4**	**12.6**
Bandera	**16.7**	**14.9**
Eagle Pass	**16.7**	**8.6**
Edgewood	15.4	14.2
Alamo Heights	**15.3**	**10.0**
Southwest	15.3	14.0
Harlandale	15.6	15.4
Southside	13.8	14.9
Kerrville	13.3	13.2
Center Point	13.2	13.1
South San Antonio	**13.1**	**10.6**
Natalia	13.0	13.7
San Antonio	11.9	12.7
Hondo	11.4	11.6
East Central	*10.8*	*12.4*
Devine	*10.4*	*12.7*
Judson	*8.3*	*10.1*
Pleasanton	*9.8*	*18.2*
North East	*8.0*	*15.3*
Ingram	*7.3*	*8.9*

Note. [a]**Boldface** indicates overrepresentation and *italics* indicates underrepresentation according to the Chinn and Hughes (1987) formula, "percentages exceeding plus or minus 10% of the percentage expected on the basis of the school-age population" (p. 43).

Representational patterns indicated by risk indices depicted the same representational patterns as reported by composition indices. These results are to be expected given that composition and risk indices report a similar phenomenon, that is, the participation of English language learners in special education programs.

Relative Risk Ratios

Coutinho and Oswald (1998) used relative risk ratios to calculate the degree of disproportionate representation defined as "the extent to which membership in a given ethnic group affects the probability of being placed in a specific special educational disability category" (p. 67). The relative risk ratios reported in this study describe the extent to which being an English language learner affected the probability of being identified as a student having a disability. Relative risk ratios greater than 1.00 indicate that English language learners are at a greater risk of being identified for special education services than their peers who are not English language learners. Furthermore, relative risk ratios of less than 1.00 indicate that English language learners are less likely to be identified for special education services than their peers who are not English language learners (Donovan & Cross, 2002). Coutinho and Oswald (2004) noted that there "is not a single, recognized approach for determining when disproportionality is large enough to be important" (p. 6). If the Chinn and Hughes (1987) criterion were used, then odds ratios greater than 1.10 would be considered an indication of overrepresentation and a relative risk ratio of .90 would indicate underrepresentation. Coutinho and Oswald (2004) have suggested 1.5 as an arbitrary cut off value for representation and have described this as "socially significant" (p. 6). Parrish (2002) has

suggested that overrepresentation is "twice the risk of identification in relation to that for [the comparison group], with underrepresentation defined as one-half the risk" (p. 20). Table 4.7 summarizes the descriptive statistics of the relative risk ratios in the three regions included in this study, as well as the aggregate category of South Texas.

As noted in Table 4.7, the mean relative risk ratios for each of the ESC Regions, as well as the region of South Texas, are 2.00 or greater. This means that English language learners in South Texas and the three ESC Regions that comprise South Texas were anywhere from two times to two and one-half times more likely to be identified as needing special education services than their non-English language learner peers.

Table 4.7. Descriptive Statistics of Relative Risk Ratios in South Texas and ESC Regions I, II, and XX

ESC Region	N	Min.	Max.	M	SD
I	36	.63	7.75	2.51	1.38
II	33	.58	3.77	2.04	1.00
XX	41	.51	12.94	2.00	2.04
South Texas	110	.51	12.94	2.18	1.58

Note. Mean (M) and standard deviation (SD) have been rounded to the nearest hundredth.

Tables 4.8, 4.9, and 4.10 report the relative risk ratios for each of the districts in the three regions in South Texas. For example, as reported in Table 4.8, English language learners in South Texas ISD were seven and three-fourths times more likely to be identified for special education services than students in the district who were not English language learners (relative risk ratio=7.75). Relative risk ratios are rank-ordered

in descending order. Parrish's cut-off of 2.0 for overrepresentation and .50 for

underrepresentation has been used to designate disproportionate representation.

Table 4.8. Relative Risk Ratios of English Language Learners in ESC Region I School Districts

District[a]	Relative Risk Ratio
South Texas	**7.75**
Roma	**5.64**
Monte Alto	**4.26**
Valley View	**3.92**
Edcouch-Elsa	**3.65**
La Villa	**3.64**
Zapata	**3.44**
Hidalgo	**3.38**
Rio Grande City	**2.93**
United	**2.88**
Santa Maria	**2.82**
Lasara	**2.78**
Weslaco	**2.71**
Progreso	**2.65**
Laredo	**2.60**
Brownsville	**2.46**
La Joya	**2.30**
P-SJ-Alamo	**2.18**
Donna	**2.15**
Edinburg	**2.12**
Mercedes	**2.10**
Rio Hondo	**2.01**
Mission	1.99
McAllen	1.98
Harlingen	1.81
San Perlita	1.75
Sharyland	1.68
San Isidro	1.61
Los Fresnos	1.59
San Benito	1.46
Point Isabel	1.31
La Feria	1.22
Lyford	1.21
Santa Rosa	0.96
Jim Hogg Co.	0.69
Raymondville	0.63

Note. [a]**Boldface** indicates overrepresentation as defined by Parrish (2002): "twice the risk of identification in relation to that for [non-ELLs], with underrepresentation [italics] defined as one-half the risk" (p. 20).

Table 4.9. Relative Risk Ratios of English Language Learners in ESC Region II School Districts

District[a]	Relative Risk Ratio
Riviera	**3.77**
La Gloria	**3.77**
Ben Bolt-Palito Blanco	**3.73**
Sinton	**3.24**
San Diego	**3.12**
Orange Grove	**3.08**
Skidmore-Tynan	**3.05**
Agua Dulce	**2.98**
Benavides	**2.96**
Odem-Edroy	**2.72**
Ricardo	**2.64**
Mathis	**2.61**
Calallen	**2.54**
Taft	**2.45**
Alice	**2.37**
Robstown	**2.08**
Premont	**2.02**
Freer	1.83
Bishop	1.67
George West	1.53
Brooks Co.	1.52
West Oso	1.39
Kingsville	1.18
Flour Bluff	1.16
Gregory-Portland	1.14
Beeville	1.12
Ingleside	1.02
Aransas Pass	0.92
Corpus Christi	0.89
Banquete	0.77
Driscoll	0.76
Tuloso-Midway	0.62
Aransas Co.	0.58

Note. [a]Boldface indicates overrepresentation as defined by Parrish (2002): "twice the risk of identification in relation to that for [non-ELLs], with underrepresentation [italics] defined as one-half the risk" (p. 20).

Table 4.10. Relative Risk Ratios of English Language Learners in ESC Region XX School Districts

District[a]	Relative Risk Ratio
Knippa	**12.94**
La Pryor	**5.38**
Eagle Pass	**4.57**
Crystal City	**3.78**
Carrizo Springs	**3.69**
Lytle	**2.36**
Uvalde	**2.51**
La Vernia	**2.33**
Cotulla	**2.31**
Poteet	**2.29**
Boerne	**2.12**
Pearsall	**2.10**
Dilley	**2.04**
Charlotte	1.88
Medina Valley	1.85
Leakey	1.84
Sabinal	1.84
Brackett	1.72
Floresville	1.66
Alamo Heights	1.57
Jourdanton	1.54
Somerset	1.44
Ft. Sam Houston	1.36
South San Antonio	1.30
Northside	1.22
Bandera	1.12
Edgewood	1.11
Southwest	1.10
Harlandale	1.01
Kerrville	1.01
Center Point	1.00
Hondo	0.98
Natalia	0.94
San Antonio	0.92
Southside	0.92
East Central	0.86
Devine	0.82
Ingram	0.82
Judson	0.81
Pleasanton	0.53
North East	0.51

Note. [a]**Boldface** indicates overrepresentation as defined by Parrish (2002): "twice the risk of identification in relation to that for [non-ELLs], with underrepresentation [italics] defined as one-half the risk" (p. 20).

As noted in Table 4.8, English language learners in 22 (61.1%) of the 36 districts in ESC Region I are more than twice as likely as their non-ELL peers to be placed in special education programs. An additional 11 districts (30.6%) that documented overrepresentation with composition and risk indices did not meet Parrish's (2002) definition of overrepresentation; however, these districts reported relative risk ratios between 1.21 and 1.99. As noted in Table 4.9, in 17 (51.5%) of the 33 districts in ESC Region II, English language learners are more than twice as likely as their non-ELLs peers to be identified as special education students. Furthermore, 9 districts (27.2%) reported relative risk ratios between 1.12 and 1.83. Finally, as noted in Table 4.10, 13 (31.7%) of the 41 districts in ESC Region XX reported relative risk ratios greater than 2.0 for English language learners receiving special education services. Interestingly, students who are English language learners in Knippa ISD were almost 13 times more likely to receive special education services than their non-ELL peers. An additional 13 districts in ESC Region XX reported relative risk ratios between 1.12 and 1.88.

Overall, the representational patterns of English language learners receiving special education services in school districts in South Texas indicated overrepresentation. Eighty-five (77.3%) of the 110 school districts in the South Texas area demonstrated overrepresentation of English language learners in special education classes, either by Parrish's (2002) definition of an odds ratio equal to or greater than 2.0 (47.3%), or by Chinn and Hughes' (1987) 10% rule (30%). As shown in Tables 4.11 and 4.12, the districts with overrepresentation concerns were overwhelmingly located in ESC Region I, where 33 (91.7%) of the 36 districts met both of the criteria. School districts in

ESC Region I with relative risk ratios equal to or greater than 2.0 are shown in Table

4.11. School districts in ESC Region I with relative risk ratios between 1.12 and 1.99 are

shown in Table 4.12.

Table 4.11. Relative Risk Ratios, Composition Indices, and Risk Indices of English
Language Learners in ESC Region I School Districts With Relative Risk Ratios Equal to
or Greater than 2.00

District	Relative Risk Ratio	Composition Index	Risk Index
South Texas	7.75	22.1	41.9
Roma	5.64	83.3	14.7
Monte Alto	4.26	68.6	20.6
Valley View	3.92	82.4	14.8
Edcouch-Elsa	3.65	73.4	16.5
La Villa	3.64	68.8	17.0
Zapata	3.44	67.7	18.2
Hidalgo	3.38	79.9	9.3
Rio Grande City	2.93	74.7	19.0
United	2.88	70.4	19.6
Santa Maria	2.82	61.9	11.8
Lasara	2.78	54.5	12.4
Weslaco	2.71	50.0	17.0
Progreso	2.65	70.5	9.3
Laredo	2.60	80.9	17.7
Brownsville	2.46	71.2	18.2
La Joya	2.30	67.7	15.0
P-SJ-Alamo	2.18	59.3	12.8
Donna	2.15	70.2	12.9
Edinburg	2.12	48.5	14.4
Mercedes	2.10	49.7	13.9
Rio Hondo	2.01	23.3	28.4

Table 4.12. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in ESC Region I School Districts With Relative Risk Ratios Between 1.12 and 1.99

District	Relative Risk Ratio	Composition Index	Risk Index
Mission	1.99	43.0	9.8
McAllen	1.98	52.8	11.5
Harlingen	1.81	22.1	16.7
San Perlita	1.75	20.6	21.9
Sharyland	1.68	35.6	11.5
San Isidro	1.61	23.7	22.0
Los Fresnos	1.59	36.3	16.2
San Benito	1.46	33.0	15.7
Point Isabel	1.31	34.1	13.5
La Feria	1.22	15.6	11.0
Lyford	1.21	17.9	12.2

School districts in ESC Region II with patterns of overrepresentation are shown in Tables 4.13 and Table 4.14. In ESC Region II, 17 (51.5%) of the 33 school districts demonstrated overrepresentation according to Parrish's definition (see Table 4.13) and an additional 9 districts (27.3%) had relative risk ratios between 1.12 and 1.99 (see Table 4.14).

Table 4.13. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in ESC Region II School Districts With Relative Risk Ratios Equal to or Greater than 2.00

District	Relative Risk Ratio	Composition Index	Risk Index
Riviera	3.77	19.0	40.0
La Gloria	3.77	33.3	27.3
Ben Bolt-Palito Blanco	3.73	30.9	31.8
Sinton	3.24	7.2	44.0
San Diego	3.12	32.3	24.9
Orange Grove	3.08	7.9	34.1
Skidmore-Tynan	3.05	12.9	39.4
Agua Dulce	2.98	11.8	28.6
Benavides	2.96	32.2	28.4
Odem-Edroy	2.72	14.3	24.3
Ricardo	2.64	12.1	26.9
Mathis	2.61	13.3	25.7
Calallen	2.54	4.0	31.7
Taft	2.45	20.1	35.3
Alice	2.37	10.2	25.0
Robstown	2.08	10.6	31.9
Premont	2.02	22.1	28.4

Table 4.14. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in ESC Region II School Districts With Relative Risk Ratios Between 1.12 and 1.99

District	Relative Risk Ratio	Composition Index	Risk Index
Freer	1.83	5.4	17.9
Bishop	1.67	11.0	22.0
George West	1.53	4.8	16.2
Brooks Co.	1.52	6.9	23.7
West Oso	1.39	11.3	16.9
Kingsville	1.18	12.4	17.2
Flour Bluff	1.16	2.6	14.8
Gregory-Portland	1.14	2.6	13.4
Beeville	1.12	2.2	12.2

School districts in ESC Region with patterns of overrepresentation are shown in Tables 4.15 and Table 4.16. In ESC Region XX, 13 (31.7%) of the 41 school districts demonstrated overrepresentation according to Parrish's definition (see Table 4.15) and an additional 13 districts (31.7%) had relative risk ratios between 1.12 and 1.99 (see Table 4.16).

Table 4.15. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in ESC Region XX School Districts With Relative Risk Ratios Equal to or Greater than 2.00

District	Relative Risk Ratio	Composition Index	Risk Index
Knippa	12.94	40.0	50.0
La Pryor	5.38	55.6	27.8
Eagle Pass	4.57	73.3	16.7
Crystal City	3.78	47.3	26.4
Carrizo Springs	3.69	29.1	29.7
Lytle	2.36	18.9	25.9
Uvalde	2.51	20.3	24.5
La Vernia	2.33	6.8	30.1
Cotulla	2.31	44.4	21.8
Poteet	2.29	12.4	31.6
Boerne	2.12	7.5	24.6
Pearsall	2.10	21.7	18.4
Dilley	2.04	17.1	28.6

Table 4.16. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in ESC Region XX School Districts With Relative Risk Ratios Between 1.12 and 1.99

District	Relative Risk Ratio	Composition Index	Risk Index
Charlotte	1.88	10.4	26.7
Medina Valley	1.85	10.1	22.1
Leakey	1.84	13.5	31.8
Sabinal	1.84	12.9	26.2
Brackett	1.72	16.5	24.6
Floresville	1.66	6.3	21.7
Alamo Heights	1.57	7.6	15.3
Jourdanton	1.54	6.9	19.0
Somerset	1.44	12.1	17.4
Ft. Sam Houston	1.36	4.1	21.1
South San Antonio	1.30	22.1	13.1
Northside	1.22	7.3	17.6
Bandera	1.12	3.0	16.7

Table 4.17 delineates school districts in South Texas with underrepresentation of English language learners in special education programs. As noted in Table 4.17, 13 (11.8%) of the 110 school districts in South Texas demonstrated underrepresentation according to Chinn and Hughes' rule, but none met the Parrish criterion of an odds ratio of .50 or less, as relative risk ratios for underrepresentation ranged from .51 to .89. The districts with underrepresentation were almost evenly divided between Regions II and XX, where 5 and 6 of the districts were located, respectively.

Table 4.17. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in South Texas School Districts With Relative Risk Ratios Between .51 and .89

District	Relative Risk Ratio	Composition Index	Risk Index
Corpus Christi	0.89	7.9	12.6
East Central	0.86	3.7	10.8
Devine	0.82	2.8	10.4
Ingram	0.82	6.1	7.3
Judson	0.81	3.7	8.3
Banquete	0.77	14.3	9.3
Driscoll	0.76	4.0	9.4
Jim Hogg Co.	0.69	10.0	10.8
Raymondville	0.63	8.8	7.3
Tuloso-Midway	0.62	2.8	7.4
Aransas Co.	0.58	2.7	9.2
Pleasanton	0.53	1.4	9.8
North East	0.51	2.5	8.0

Finally, as shown in Table 4.18, 12 (10.9%) of the 110 school districts in South Texas had relative risk ratios between .92 and 1.11, which indicated there were no disproportionate numbers of English language learners receiving special education services. Nine (75%) of these districts were located in Region XX.

Table 4.18. Relative Risk Ratios, Composition Indices, and Risk Indices of English Language Learners in South Texas School Districts With Relative Risk Ratios Between .92 and 1.11

District	Relative Risk Ratio	Composition Index	Risk Index
Edgewood	1.11	22.0	15.4
Southwest	1.10	13.8	15.3
Ingleside	1.02	4.0	13.0
Harlandale	1.01	15.2	15.6
Kerrville	1.01	3.8	13.3
Center Point	1.00	7.0	13.3
Hondo	0.98	3.6	13.2
Natalia	0.94	8.3	11.4
San Antonio	0.92	15.9	13.0
Southside	0.92	9.1	11.9
Santa Rosa	0.96	22.7	12.5
Aransas Pass	0.92	6.5	15.5

Research Question Two

What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas?

Relative Risk Ratios and School District Characteristics

Several authors (Coutinho & Oswald, 2004; Donovan & Cross, 2002; Losen & Orfield, 2002; U.S. Office of Special Education Programs, 2003) have reported that of the composition index, the risk index, and the relative risk ratio, the relative risk ratio is the best measure of disproportionality. Therefore, the relative risk ratio was used as the dependent variable in the calculation of the Pearson product-moment correlation

coefficients. The independent variables were six school district characteristics. These characteristics were total student enrollment, percentage of Latinos, percentage of English language learners, percentage of Latino teachers, percentage of poor/underserved students, and percentage of students enrolled in bilingual/English as a second language programs. These analyses provided information to answer the second research question: "What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas?" Table 4.19 shows the relationship between relative risk ratios and the characteristics of the school districts in South Texas (N=110) and ESC Region I (N=36), Region II (N=33), and Region XX (N=42).

Table 4.19. Relationship Between Relative Risk Ratios, and Characteristics of School Districts in South Texas and ESC Regions I, II, and XX

Characteristic	South Texas	Region I	Region II	Region XX
Enrollment	-.148	-.065	-.296	-.195
ELLs	.229*	.250	.111	.195
Latino students	.179	-.095	.379*	.083
Poor	.078	-.160	.141	-.001
Latino teachers	.229*	.079	.360*	.168
Bil/ESL	.235*	.264	.100	.216

Note. ELLs means enrollment of English language learners.
Poor means enrollment of poor/underserved.
Bil/ESL means enrollment of students in bilingual or English as a second language programs.
*Significant at the .05 level (2 tailed).

As noted in Table 4.19, for the school districts in South Texas, Pearson product-moment correlation coefficients were statistically significant for relative risk ratios and the school district characteristics of percentage of English language learners, percentage of Latino teachers, and percentage of students enrolled in bilingual/English as a second language programs. Furthermore, the coefficients indicated a positive relationship, meaning that districts in the study with higher relative risk ratios (indicating overrepresentation) had greater numbers of ELLs enrolled in the districts, greater percentages of Latino teachers, and larger numbers of students in the districts enrolled in bilingual/English as a second language programs. Positive relationships were also found in Region II between relative risk ratios and the school district characteristics of percentage of Latino students enrolled in the district and percentage of Latino teachers employed by the district.

Since an overwhelming number of districts in South Texas (85 of 110, or 77.3%) demonstrated overrepresentation of English language learners receiving special education services, additional analyses were undertaken to determine if there were any relationships between relative risk ratios and school districts' characteristics when relative risk ratios were rank ordered and divided into subcategories. After rank ordering the relative risk ratios for South Texas and ESC Regions I, II, and XX, four subcategories were created: districts with relative risk ratios equal to or greater than 1.12 (N=85), districts with odd ratios equal to or greater than 2.00 (N=52), districts with relative risk ratios equal to or greater than 2.50 (N=34), and districts with relative risk ratios equal to or greater than 3.00 (N=20). Pearson product-moment correlation

coefficients were again calculated to determine if there were relationships between

relative risk ratios and school district characteristics. Results of these analyses are

included in Tables 4.20-4.23.

As reported in Tables 4.20 and 4.21, there were inverse, statistically significant

relationships between total student enrollment and relative risk ratios in the districts in

Region II, when relative risk ratios were greater than 1.12 and larger than 2.00.

Table 4.20. Relationship Between Relative Risk Ratios and Characteristics of School
Districts in South Texas and ESC Regions I, II, and XX: Districts With Relative Risk
Ratios Equal to or Greater Than 1.12

Characteristic	South Texas N=85	Region I N=33	Region II N=26	Region XX N=26
Enrollment	-.122	-.164	-.569**	-.138
ELLs	.132	.143	.298	.172
Latino students	.077	-.076	.249	.070
Poor	.016	-.149	.004	.042
Latino teachers	.098	.074	.191	.123
Bil/ESL	.143	.157	.331	.215

Note. ELLs means enrollment of English language learners.
Poor means enrollment of poor/underserved.
Bil/ESL means enrollment of students in bilingual or English as a second language programs.
**Significant at the .01 level (2 tailed).

Additionally, as can be seen in Table 4.21, other inverse relationships between

relative risk ratios and school district characteristics appeared for ESC Region I when

relative risk ratios were greater than 2.0. In ESC Region I, when relative risk ratios were

equal to or greater than 2.0, there were statistically significant inverse relationships

between relative risk ratios and percentage of Latino students, percentage of

poor/underserved students, and percentage of Latino teachers. These relationship were

also noted when relative risk ratios were greater than 2.50 and 3.00.

Table 4.21. Relationship Between Relative Risk Ratios and Characteristics of School Districts in South Texas and ESC Regions I, II, and XX: Districts With Relative Risk Ratios Equal to or Greater Than 2.00

Characteristic	South Texas N=52	Region I N=22	Region II N=17	Region XX N=13
Enrollment	-.183	-.375	-.541*	-.122
ELLs	-.069	-.336	.147	-.011
Latino students	-.192	-.685**	-.186	-.162
Poor	-.195	-.607**	-.329	-.121
Latino teachers	-.145	-.501*	.003	-.112
Bil/ESL	-.055	-.309	.191	.050

Note. ELLs means enrollment of English language learners.
Poor means enrollment of poor/underserved.
Bil/ESL means enrollment of students in bilingual or English as a second language programs.
*Significant at the .05 level (2 tailed).
**Significant at the .01 level (2 tailed.)

Other statistically significant inverse relationships began to appear as relative risk

ratios became larger (See Tables 4.22 and 4.23). For example, in addition to the

aforementioned relationships, the percentage of English language learners and

percentage of students served in bilingual/English as a second language programs were

inversely related to relative risk ratios greater than 2.50 in ESC Region I. With the

exception of the characteristic of percentage of students served in bilingual/English as a

second language programs, these inverse relationships were also noted when relative risk

ratios were greater than 3.00. Finally, inverse relationships between percentage of Latino

students and relative risk ratios greater than 2.50 and 3.00 were documented in South

Texas, Region I and Region XX.

Table 4.22. Relationship Between Relative Risk Ratios and Characteristics of School
Districts in South Texas and ESC Regions I, II, and XX: Districts With Relative Risk
Ratios Equal to or Greater Than 2.50

Characteristic	South Texas N=34	Region I N=15	Region II N=13	Region XX N=6
Enrollment	-.161	-.303	-.509	-.362
ELLs	-.142	-.576*	.408	-.349
Latino students	-.364*	-.784**	.191	-.912*
Poor	-.290	-.666**	-.041	-.705
Latino teachers	-.306	-.696**	.296	-.734
Bil/ESL	-.130	-.515*	.442	-.325

Note. ELLs means enrollment of English language learners.
Poor means enrollment of poor/underserved.
Bil/ESL means enrollment of students in bilingual or English as a second language programs.
*Significant at the .05 level (2 tailed).
**Significant at the .01 level (2 tailed).

Table 4.23. Relationship Between Relative Risk Ratios and Characteristics of School Districts in South Texas and ESC Regions I, II, and XX: Districts With Relative Risk Ratios Equal to or Greater Than 3.00

Characteristic	South Texas N=20	Region I N=8	Region II N=7	Region XX N=5
Enrollment	-.065	.046	-.706	-.343
ELLs	-.194	-.770*	.404	-.534
Latino students	-.502*	-.857**	.163	-.977**
Poor	-.417	-.809*	-.568	-.744
Latino teachers	-.459*	-.836**	.379	-.953*
Bil/ESL	-.176	-.692	.474	-.527

Note. ELLs means enrollment of English language learners.
Poor means enrollment of poor/underserved.
Bil/ESL means enrollment of students in bilingual or English as a second language programs.
*Significant at the .05 level (2 tailed).
**Significant at the .01 level (2 tailed).

CHAPTER V

DISCUSSION AND CONCLUSIONS

This chapter commences with a discussion of the findings of the study. Then, conclusions, implications for practice, limitations of the study, and suggestions for future research are presented.

Discussion of Findings

This study was conducted to answer two research questions: (a) What are the representational patterns of English language learners receiving special education services in South Texas? and (b) What is the relationship between the representational patterns of English language learners receiving special education services and the characteristics of school districts in South Texas? To answer research question one, this study utilized composition indices, risk indices, and relative risk ratios to report the representational patterns of English language learners receiving special education services in school districts in South Texas. Subsequently, to respond to research question two, correlation coefficients were used to determine possible relationships between the representational patterns of English language learners and six school district characteristics. These characteristics included (a) total student enrollment, (b) percentage of poor/underserved students, (c) percentage of Latino students, (d) percentage of English language learners, (e) percentage of Latino teachers, and (f) percentage of students in bilingual/English as a second language programs.

Research Question One: Representational Patterns

of English Language Learners

Data analyses regarding the first research question concerning the representational patterns of English language learners revealed that English language learners are overrepresented in special education programs in South Texas school districts. Specifically, this study documented the following findings regarding the representational patterns of English language learners in South Texas:

- Of the 110 schools districts in South Texas included in this study, 85 (77.3%) of the districts demonstrated overrepresentation.

- Most of these districts were located in ESC Region I, where 33 (91.7%) of the 36 districts indicated overrepresentation (see Tables 4.11 and 4.12).

- Twenty-six (78.8%) of the 33 districts in ESC Region II demonstrated overrepresentation of English language receiving special education services (see Tables 4.13 and 4.14).

- ESC Region XX reported 26 (63.4%) of the 41 districts with high numbers of English language learners being placed in classes for students with disabilities (see Tables 4.15 and 4.16).

The finding of overrepresentation of English language learners in special education programs as an answer to research question one is discussed further.

Although trends of underrepresentation of English language learners receiving special education services have been reported at the national level (Zehler et al., 2003) and state level (Carmichael & Whitten, 2002; Henderson et al., 1993), the present study

documented the contradictory finding of considerable overrepresentation of English language learners in special education programs in districts in South Texas. The fact that the regional patterns of disproportionality found in this investigation are contrary to national and state patterns punctuates the importance of the observation made by researchers to disaggregate data in order to fully understand the representational patterns of students of color in special education programs (Artiles, Rueda, Salazar, & Higareda, 2002; Donovan & Cross, 2002; Harry, 1994; Losen & Orfield, 2002; Zhang & Katsiyannis, 2002). The present study has demonstrated that data aggregated and reported at the national and state levels should not be extrapolated to ascertain representational patterns in smaller entities within the State of Texas, such as ESC regions and individual districts, as it may not accurately depict the representational patterns of English language learners receiving special education services.

The patterns of overrepresentation among ELLs receiving special education services discovered in this study are supported by the results from Artiles and his colleagues (Artiles, Rueda, Salazar, & Higareda, 2002, 2005), who studied the representational patterns of English language learners in the State of California. This comparability may be attributed to the similarities between the present study conducted in Texas and the Artiles study conducted in California. Firstly, the districts in both studies were "heavily populated by English [language] learners, particularly of Latino descent" (Artiles, Rueda, Salazar, & Higareda, 2002, p. 121). Additionally, the unit of analysis, an aggregate of districts, was utilized in both studies. In the California study, Artiles and his investigators' unit of analysis were 11 urban school districts throughout

the state. Likewise, in the present study, the unit of analysis was an aggregate of districts as defined by an ESC Region.

Additionally, the findings of this study did support observations by Harry (1994) that overrepresentation of Latinos, or in this case, English language learners, is considerably noticeable in states where these students comprise a substantial percentage of the school population, as they do in South Texas school districts. The population corresponding to South Texas had an average enrollment of English language learners equal to 18.2% (state enrollment of ELLs is 15.3%) with ELL enrollment in Region I being 39.3%. If Harry's observations are valid, then they may explain the average relative risk ratio of 2.18 in South Texas and 2.51 in ESC Region I.

Research Question Two: Relationship Between Relative Risk

Ratios and School Distinct Characteristics

Data analyses conducted to answer research question two concerning the relationship between relative risk ratios and school district characteristics revealed two contradictory findings. The first finding documented positive relationships in South Texas and ESC Region II between relative risk ratios and certain school district characteristics. The second finding revealed inverse relationships, in some instances, between relative risk ratios and certain school district characteristics. These two findings regarding research question two are discussed further.

The preliminary finding of positive relationships between relative risk ratios and the school districts' characteristics of percentage of English language learners, percentage of Latino teachers, and percentage of students enrolled in bilingual/English as

a second language programs in South Texas school districts (see Table 4.19) seemed to be contradictory to previous reports in the literature (Carmichael & Whitten, 2002; Finn, 1982; Zehler et al., 2003). Additionally, a positive relationship was documented in ESC Region II between relative risk ratios and the percentage of Latino students in the district. This finding is consistent with Harry's (1994) explanation of higher proportions of Latino students in special education programs where there are larger concentrations of Latino students, but contrary to the negative relationship found by Oswald, Coutinho, Best, and Singh's (1999) findings regarding the participation of African Americans in programs for students with mental retardation and emotional disturbance.

Given the contradictions between the results of this study and previously reported empirical research, additional analyses were conducted to further investigate the relationship between relative risk ratios that depicted overrepresentation and school districts' characteristics. The results of these analyses indicated a second finding regarding research question two; that is, inverse relationships between relative risk ratios and school districts' characteristics began to emerge in South Texas and the ESC regions (especially Region I, where 33 (97.1%) of the districts had ELLs overrepresented in special education programs) when relative risk ratios were greater than 2.00 (see Tables 4.21, 4.22, and 4.23). In the present study, statistically significant, inverse relationships were documented between relative risk ratios and the school districts' characteristics of percentage of Latinos, percentage of English language learners, percentage of students enrolled in bilingual/English as a second language programs, percentage of Latino

teachers, and percentage of poor/underserved students enrolled in the district. Each of these variables and the corresponding pertinent research is discussed further.

In the present study, there was an inverse relationship documented between the relative risk ratios of English language learners and the Latino enrollment in the district when relative risk ratios were equal to or greater than 2.00 in ESC Region I. This finding was also true for South Texas, ESC Region I and ESC Region XX when relative risk ratios were equal to or greater than 2.50 and 3.00. That is, when English language learners were more than twice as likely as their non-ELL peers to be receiving special education services, they were likely to be in a district with few numbers of Latino students. This outcome is supported by Oswald, Coutinho, Best, and Singh's (1999) observation that African American students, when compared to non-African American students, were more likely to be identified as having a serious emotional disturbance in school districts with few African American students. Likewise, Coutinho and her colleagues (Coutinho, Oswald, & Best, 2002; Coutinho, Oswald, Best, & Forness, 2002; Oswald, Coutinho, Best, & Nguyen; 2001) found that identification rates for learning disabilities, serious emotional disturbance, and mental retardation for students of color declined as the percentage of students of color in the district increased. Interestingly, when data were aggregated and reported at the state level, Latino enrollment of the district did not correlate with students' placement in special education programs. Carmichael and Whitten (2002) observed, "there was no evidence that the proportion of minorities in special education varies as a result of the proportion of minorities enrolled in the district" (p. 22).

The present investigation documented a statistically significant inverse relationship in ESC Region I between relative risk ratios equal to or greater than 2.50 and 3.00 and the percentage of English language learners in a district. That is, English language learners, when compared to non-English language learners, were more than two and one-half times as likely to be receiving special education services in school districts with few numbers of English language learners in ESC Region I. Likewise, several national studies (Coutinho, Oswald, & Best, 2002; Coutinho, Oswald, Best, & Forness, 2002; Oswald, Coutinho, Best, & Nguyen, 2001; Zehler et al., 2003) have documented the inverse relationship between the percentage of English language learners in a district and the relative risk ratios of students of color, including English language learners.

In the present study, when relative risk ratios were equal to or greater than 2.50, there was a statistically significant inverse relationship between relative risk ratios and the percentage of students enrolled in bilingual/English as a second language programs. In other words, in districts with few students enrolled in bilingual/English as a second language programs, English language learners were more likely to be receiving special education services. This finding is consistent with other findings in the research base. For example, Finn (1982) and more than 20 years later, Zehler et al. (2003) found that districts with fewer English language learners identified more of their ELLs for special education programs than districts with greater numbers of ELLS. Additionally, Artiles, Rueda, Salazar, and Higareda (2002) found that the more native language support that children had, the less likely they would be placed in special education classes. That is,

ELLs in English immersion programs were almost three times more likely to be placed

in special education programs than ELLs participating in bilingual programs.

A statistically significant inverse relationship was observed between the

percentage of Latino teachers employed by the district and disproportionality of English

language learners in ESC Region I when relative risk ratios were equal to or greater than

2.00 and 2.50. That is, the more often Latino teachers were employed by the district, the

less likely English language learners were to be receiving special education services. The

same was true of South Texas, ESC Region I and ESC Region XX when relative risk

ratios were equal to or greater than 3.00. In the study conducted in Texas, Carmichael

and Whitten (2002) found that teacher ethnicity was the only district characteristic to be

significantly related to the placement of students of color in special education. For

example, in a district with no minority teachers, the likelihood that a student would

receive special education services was about 11% for a Latino student. When the

percentage of teachers of color increased, the number of Hispanic students placed in

special education decreased to 9%, although they were still underrepresented.

Finally, this study documented a surprising outcome regarding the relationship

between relative risk ratios and the percentage of poor/underserved students in the

districts in ESC Region I. The finding of an inverse relationship between relative risk

ratios and percentage of poor/underserved students was contrary to findings by Oswald

and his colleagues (Coutinho, Oswald & Best, 2002; Coutinho, Oswald, Best, & Forness,

2002; Oswald, Coutinho, Best, & Nguyen; 2001). These scholars discovered that the

variable of poverty was positively correlated to identification rates for students of color

in special education programs. In contrast, this study found that the likelihood that

English language learners would be receiving special education services increased in

districts that were middle/upper class.

Conclusions

Critical theory serves as a theoretical framework by which the findings of this

study can be examined. In their discussion of the assumptions of critical theory,

Kincheloe and McLaren (2000) stated the importance of recognizing that certain groups

in any given society are privileged over others, that oppression has many facets, and that

mainstream research, which is mostly positivist, may unwittingly be drawn into

reproducing the systems of oppression in our society.

Privileged Groups in Society

Certain groups in the U.S. society are privileged over others (Kincheloe &

McLaren, 2000). Decidedly, English proficient individuals in the United States enjoy a

privileged status, while English language learners do not. According to the results of this

study, a serious problem, in the form of overrepresentation of English language learners

in special education, exists in 85 of the 110 districts across three ESC regions in South

Texas. In other words, English language learners in the majority of districts across South

Texas are more than two times as likely to be placed in special education classes as their

English proficient peers. It is the practice of both general and special education to

reproduce the status quo of the societal structures that lead to the imbalances of power

and subsequent alienation and/or oppression of certain groups of people in our schools

and society (Apple, 1979; Bourdieu, 1974; Bowles & Gintis, 1976). Ferri and Connor

(2005) have suggested that special education is one of the post-*Brown* strategies that have been utilized by schools to resegregate students of color within schools. Indeed, "segregation on the basis of race or ethnicity and disability is still a pervasive problem in our educational system as a whole and in special education programs in particular" (Blanchett, Mumford, & Beachum, 2005, p. 73). Placing high numbers of English language learners in special education classes is one way that the dominant culture, which is English proficient, oppresses non-English speakers and continues to ensure that English language learners maintain their low-status in the greater society so that English proficient individuals can continue to enjoy their privileged status.

Oppression Has Many Faces

Secondly, oppression has many faces (Kincheloe & McLaren, 2000). It is not possible to study only the English language learner. One must also understand that many English language learners, especially in South Texas, are recent immigrants or undocumented workers who are poor and speak a low-status language, Spanish. Overrepresentation for districts in this study was inversely related to percentage of English language learners, percentage of Latino students, percentage of Latino teachers, percentage of students enrolled in bilingual/English as a second language programs, and percentage of poor/underserved students. That is, English language learners were more likely to be receiving special education services in districts that had higher numbers of English proficient students, higher numbers of European American students and European American teachers, higher numbers of students enrolled in classes given only in English, and higher numbers of middle and upper socioeconomic status students.

Again, placing English language learners in special education classes ensures that they

are more likely to be segregated from general education students who are European

American, English proficient, and middle or upper socioeconomic status. Additionally, it

guarantees that this segregation is replicated in society by ensuring that Latinos continue

to be "concentrated in non-professional, service occupations such as

household/ground/building cleaning and food preparations and serving" (Toussaint-

Comeau, Smith, & Comeau, 2005).

Conventional Research Practices

Finally, mainstream research, which is mostly positivist, may unwittingly be

drawn into reproducing the systems of oppression in our society (Kincheloe & McLaren,

2000). Despite over 35 years of study and documentation of overrepresentation of

students of color in special education, the problem persists (Donovan & Cross, 2002;

Losen & Orfield, 2002; Patton, 1998) and researchers still do not have a clear

understanding of the representational patterns of English language learners even though

their numbers continue to grow (Artiles, Rueda, Salazar, and Higareda, 2002). National

and state reports of the underrepresentation of Latinos and/or English language learners

in special education programs and the observations by researchers in the Texas study that

"Texas does not have a statewide problem with overrepresentation of minority children

in special education," (p. 14) and that Latino "students, especially those with limited

English proficiency, were consistently under-represented in special education programs"

(Johnson, Lessem, & Bergquist, 2002, p. 11), are at best misleading and at worst,

downright inaccurate for many school districts. Researchers from a critical theory

perspective would ask why the State of Texas is satisfied with publishing the results of a study that do not accurately represent many of the students in their state. Moreover, critical theorists would ask whose interests are served by placing so many English language learners in special education classes.

One of the major contributing factors to overrepresentation of students of color in special education has been the failure of schools to provide students of color with a high quality, equitable education (Blanchett et al., 2005). With the nation's school population more diverse than ever before (Gollnick & Chinn, 2006), Texas becoming the fourth majority/minority state (Caldwell, 2005), and the numbers of English language learners increasing dramatically (Artiles & Ortiz, 2002), outcomes for these students will not be equitable, as long as schools are still configured to marginalize students of color who are English language learners.

Implications for Practice

The findings in this study have implications for school districts. First, school district personnel need to understand that studies of representational patterns of English language learners at the national and state level may not be representative of the representational patterns of English language learners in their districts and on their individual campuses. Therefore, administrators at the district level need to make themselves aware of the representational patterns at the state level and document and monitor the participation rates of English language learners receiving special education services in their districts. These monitoring efforts could be instrumental in helping reduce or prevent disproportionate representation of English language learners in special

education programs (Coutinho & Oswald, 2004; U.S. Office of Special Education Programs, 2003). Additionally, district administrators should disaggregate data at the district and campus levels concerning the participation rates of English language learners in special education programs according to grade level, disability category, special education placement, and bilingual/English as a second language designation, in order to better understand the types of services ELLs with disabilities are being afforded and to determine whether or not these services are appropriate. Finally, after schools have accurate data to describe the representational patterns of English language learners receiving special education services in their districts and on individual campuses, they should "then *study* the referral, assessment, and placement decision making process to guide reforms or changes in practice" (Coutinho & Oswald, 2000, p. 146).

Limitations of the Study

There were limitations to the present study. First, due to the masking of data for confidentiality purposes, the sum total of the districts identified in the original population for this study had to be reduced by 15%. With the exception of one district, the districts that were deleted from the original population identified for the study had enrollments of less than 1000 students. Excluding some of the smaller districts may have affected the results reported herein.

Although this study presented data in a more disaggregated form than previous studies at the national and state level, the unit of analysis was the aggregate of districts at the ESC region level and the subsequent aggregation of three regions at the South Texas level. Likewise, representational patterns and the school district characteristics that were

related to the patterns were reported for the aggregate category of all disabilities, and not

disaggregated according to disabilities category, for example, learning disabilities.

Important trends at the district level may have been overlooked by this aggregation of

data.

Finally, due to the scarcity of research concerning the representational patterns of

English language learners in special education programs and the school districts'

characteristics related to their placement, it was difficult to identify parallels between the

findings of this study and previously conducted studies cited in the literature. Most of the

previously conducted studies involved African Americans and/or Latinos. The possible

exception to this was the California study by Artiles and his colleagues (Artiles, Rueda,

Salazar, & Higareda, 2002, 2005).

Suggestions for Further Research

Considering the need to more accurately understand the representational patterns

of English language learners in special education programs, several recommendations are

made for future research. Most important, this study necessitates replication, especially

in the other 17 ESC Regions in the State of Texas not included in the study. For

example, ESC Region XVIII (Midland) and ESC Region XIX (El Paso) could be studied

as West Texas. Likewise, a study of Central Texas would consist of ESC Region IX

(Wichita Falls), ESC Region XI (Fort Worth), ESC Region XII (Waco), ESC Region

XIII (Austin), ESC Region XIV (Abilene), and ESC Region XV (San Angelo). Studying

the Texas Panhandle would require including ESC Regions XVI (Amarillo) and XVII

(Lubbock). The study of East Texas could be comprised of ESC Region VII (Kilgore),

ESC Region VIII (Mount Pleasant), and ESC Region X (Richardson). ESC Region III

(Victoria), ESC Region IV (Houston), ESC Region V (Beaumont), and ESC Region VI

(Huntsville) could comprise a study of the Texas Coastal Region. Finally, this study

should be replicated in any district or combination of districts in the nation where there is

evidence to suggest that national and/or state data on disproportionality do not reflect

trends in a given geographical area.

Once overall representational patterns for English language learners in the

aggregate category of all disabilities have been discerned, data need to be disaggregated

according to disability category. This in-depth analysis of data is especially critical in the

high incidence disability categories because of the ongoing concern of other groups of

students of color being disproportionately represented in special education programs. It

is safe to assume that English language learners may also be at risk. Moreover, there are

data in Texas (Johnson, Lessem, Bergquist, Carmichael, & Whitten, 2002) to suggest

that Latinos are decidedly underrepresented in the low incidence categories of autism and

other health impairments. Finally, data concerning representational patterns need to be

disaggregated and reported according to grade level, special education placement, and

type of bilingual program, as was done by Artiles and his colleagues in their California

study (Artiles, Rueda, Salazar, & Higareda, 2002, 2005).

The relationships between representational patterns of English language learners

receiving special education services and school district characteristics such as total

student enrollment, percentage of poor/underserved students, percentage of Latino

students, percentage of English language learners, percentage of Latino teachers, and

percentage of students in bilingual/English as a second language programs are still not

clear. Further research is needed to determine if these or other characteristics associated

with school districts (e.g., teacher-student ratio, per pupil expenditure, and dropout rates)

are related to representational patterns and how they are related.

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