An Investigation Of The Representation Of Middle School English Language Learners (ells) In Special Education Programs In A Large Urban School District

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AN INVESTIGATION OF THE REPRESENTATION OF MIDDLE SCHOOL ENGLISH
LANGUAGE LEARNERS (ELLs) IN SPECIAL EDUCATION PROGRAMS IN A LARGE
URBAN SCHOOL DISTRICT

by

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ABSTRACT

The disproportionate representation of ethnically and racially diverse students in special education has been an enduring problem in education for the past four decades. However, most of the research on disproportionality has focused on the ethnic/racial variable; the body of research focusing on the linguistic variable is still slim in comparison. As linguistic diversity in the United States continues to rise, teachers will continue to be challenged to meet the needs of the English Language Learners in their classrooms. However, many teachers feel unprepared to deal with this diversity and have difficulty discriminating whether a student's poor performance is due to linguistic or cognitive factors. Consequently, many English Language Learners are misidentified and misplaced in special education programs. The purpose of this study was to analyze the representation of English Language Learners in special education high incidence disability categories in a large, urban school district in Florida. Cross-tabulations and chi-square statistics were used to analyze the distribution of special education students by ethnicity/race, home language, ESOL status, and English proficiency level; risk ratio and relative risk ratio statistics were used to determine whether the district's English Language Learners showed under, equal, or over-representation in special education high incidence disability categories. The results indicated that English Language Learners were at the greatest risk for being identified as Specific Learning Disabled when compared to the other learning disability categories, and English Language Learners with intermediate English proficiency levels were at a higher risk for being identified and placed in special education high incidence disability categories when compared to beginning and advanced level English Language Learners.

This dissertation is dedicated to my family.

To my best friend and husband, Nelson Lerma, thank you for your constant love and support. Your words of encouragement and belief in me are out of this world. "We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard," (John F. Kennedy, 1962).

To my mother, Dawn Shapiro, thank you for teaching me to be a dreamer.

To my father, Jerry Shapiro, thank you for showing me that all my dreams are within my reach. I am forever grateful for your love and guidance.

To my brother, Joshua Shapiro, and to his beautiful family, Noreen, Zackery, Caleb, Nora, and Lila, thank you for your laughter, love, and smiles.

Finally, I dedicate this work to my late grandmother, Hilda Shapiro. I miss you dearly.

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CHAPTER ONE: INTRODUCTION

Overview

As the nation's diversity continues to rise, the demographics of students enrolled in K-12 public schools is changing drastically. According to the U.S. Census Bureau, racial and cultural diversity in the United States is on a constant rise. In 1999, whites accounted for 72% of the entire U.S. population, and it is projected that this figure will decrease to 64% by 2020 and to 53% by 2050. In fact, it is projected that by the year 2060, the population will be evenly split between white and non-white people. Linguistic diversity in the United States is also on a constant rise and is evident in our nation's classrooms. In just ten years-from 1990 to 2000-the number of English Language Learners (ELLs) in public schools in the United States increased 46% (Nieto & Bode, 2008). As cited in Klingner, Artiles, and Barletta (2006), the U.S. Department of Education and the National Institute of Child Health and Human Development reported that there is at least one ELL in 43% of U.S. classrooms. Moreover, they project that by the year 2030, approximately 40% of the students in our nation's schools will speak English as a second language.

Florida is one of the states with the largest enrollments of ELLs, along with California, Texas, New York, Arizona, and Illinois. According to the National Center for Educational Statistics (2009), ELLs accounted for 43.8% of students enrolled in elementary and secondary schools in the Florida in 1997. In 2007, ELLs students accounted for 52.4% of the elementary and secondary students in Florida. This change in demographics has a larger implication: the

increasing diversity of students in urban school districts across the nation challenges teachers to meet the needs of the diverse learners in their classrooms.

Despite teachers' efforts and programs in place aimed at helping ELLs succeed in the academic environment, culturally and linguistically diverse students are over-represented in special education programs, and this has been a problem in education for more than forty years (Dunn, 1968; Chinn & Hughes, 1987; Coutinho & Oswald, 2000; Artiles, Rueda, Salazar, & Higareda, 2005). Considerable research has been conducted to better understand this disproportionality and why it exists (Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, Chung, 2008; Coutinho, Oswald, & Best, 2002; Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Oswald, Coutinho, Best, & Singh, 1999). The issue that arises with the disproportionate placement of English Language Learners (ELLs) in special education programs is that these students may not be receiving the correct services for academic success. Instead, they deal with the negative consequences of the label and do not reach their maximum potential. Therefore, there is great benefit in understanding the disproportionality of ELLs who are identified as requiring special education services.

Statement of the Problem

Research investigating the disproportionate representation of minority students in special education programs began in the 1960's when Dunn (1968) published one of the earlier studies investigating the disproportionality of students of color in special education classes. Dunn's findings of the over-representation of African American students in special education raised concerns regarding civil rights and educational programs, and research in the field has continued

ever since. However, the research has focused predominantly on the over-representation of ethnic and racial minority students, specifically African American students (Skiba et al., 2008). Research investigating the over-representation of Latino students in special education programs has been limited, and rarely has language proficiency been placed at the forefront of the investigation. Because understanding the identification, testing, and placement patterns of ELLs in special education programs can help schools and districts better understand whether there is an under, equal, or over-representation of ELLs who qualify for special education services, research in this field is crucial. All students are entitled to an equal access to education. When this data is not available to schools and districts, the academic success of ELLs can be negatively impacted.

In order to ensure that all students, regardless of race or background, received equal access to education, the Education for All Handicapped Children Act was passed in 1975. In 1997, it became enacted as the Individuals with Disabilities Education Act (IDEA) which mandated the "nondiscriminatory assessment, identification, and placement of children with disabilities" (Coutinho & Oswald, 2000, p. 136). More recently, the 2004 IDEA provisions required states to disaggregate data by race, ethnicity, disability category, and special education placement. The provisions mandate that states must continuously monitor the data, and if a disproportionate representation is found, the state must review local policies and procedures (Skiba et al., 2008). The IDEA provisions were well-timed with changing demographics, for the number of students in racial subgroups enrolled in special education programs has been on a constant rise. From 1980-1990, European Americans increased 6%, African Americans increased 13%, Hispanic Americans increased 53%, and Asian Americans/Pacific Islanders

increased 107.8% (U.S. Department of Education, 2000). English Language Learners make up

the fastest growing subgroup of students in U.S. public schools, growing at a rate of ten percent

annually (Zamora, 2009).

While court mandates have raised awareness of the representation of racially and

culturally diverse students in special education programs, the representation of ELLs in special

education programs continues to be an enduring problem in education. There is no provision for

states to disaggregate the data by home language, so data reflecting the representation of ELLs

who qualify for special education services is still lacking. In addition, states are at different

stages in the implementation of the 2004 IDEA provisions, and states have taken varied

approaches in addressing the unique needs of ELLs who qualify for special education services

(Keller-Allen, 2006). These inconsistencies further challenge educators to ensure that the needs

of ELLs are being met.

In the past decade, there have been an increasing number of researchers who have

conducted investigations to further examine the representation of ELLs in special education

(Skiba, et al., 2008; Coutinho, Oswald, & Best, 2002; Artiles, Kozleski, Trent, Osher, & Ortiz,

2010). The research suggests that culturally and linguistically diverse students are over-

represented in special education programs. For example, Coutinho, Oswald, and Best (2002)

investigated the disproportionate representation of e students in special education programs and

found that the disproportionate representation was not just limited to African American students

but was also inclusive of American Indian male students. Artiles et al. (2005) investigated the

over-representation of ELLs in an urban school district in California by examining placement

patterns and found that overall there was an over-representation of ELLs enrolled in special

education at the secondary level but not at the elementary level. There was a larger over-

representation of students in special education who were not proficient in their native language

nor their second language when compared to students who were proficient in their native

language.

Many researchers have attributed the over-representation of ethnically and racially

diverse students in special education to issues with assessments which can often result in

misidentification and misplacement. Obiakor and Utley (2004) found that ethnically and racially

diverse students are frequently miscategorized, misidentified, and misplaced in special education

programs in schools across the nation to this day. An even greater problem than the proper

identification of ethnically and racially diverse learners is the assessment and placement of

English Language learners. Klingner et al. (2006) argued that identifying and placing ELLs in

special education programs is even more difficult than ethnically and racially diverse learners

because not only does the student's cultural and socioeconomic background play a role in their

education, but linguistic and immigration variables can also influence their academic

performance. Maldonado-Colon (1986) reported that in past years, students took assessments in

English regardless of their native language. This presented a greater challenge to students whose

native language was a language other than English. Furthermore, if an intelligence test is not

reliable or administered properly, it may be difficult to discriminate between the interference

from language versus intelligence. Reschly (1981) found that verbal IQ tests were used to

classify bilingual students as having mild mental retardation who were then placed in special

education programs. Their classification and placement were based on the students' limited English proficiency rather than their level of intelligence. In another study, Barrera Metz (1988) investigated the importance of language in assessment and placement of Latino students in special education programs and found that the student's native language was rarely taken into account when placing the child in special education. Ochoa et al. (1997) identified the factors school psychologists must consider to be in compliance with IDEA's exclusionary cause for the assessment of bilingual and ELL students and found that school psychologists overlooked 17 of these factors. Factors overlooked include the student's home language as well as the number of years the student has qualified for ESOL services. In fact, they found that only 1% of the psychologists even considered whether a discrepancy occurred in both English and the student's native language. This raises the concern regarding the extent to which biased assessments and misidentification are contributing to the over-representation of ELLs in special education programs. Moreover, it demonstrates the need for further research and data on the identification and placement patterns of ELLs, not just ethnically and racially diverse students, in special education programs.

Purpose of the Study

Research investigating the over-representation of ethnically and racially diverse students over the past four decades has primarily focused on the identification and placement of racial sub-groups in special education programs. Few studies have disaggregated the data to focus soley on the linguistic variable. Therefore, the researcher in the present study investigated the representation of middle school English Language Learners in special education programs in a

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large urban school district in Florida. This study focused on students at the middle school level

because English Language Learners at the elementary may not be yet identified and placed in an

ESOL program, and ELLs at the high school level may have already been exited from an ESOL

program.   Furthermore, research has demonstrated greater patterns of over-representation at the

secondary level when compared to the elementary level (Artiles et al., 2005). Florida's high

enrollment of ELLs in its public schools made it an important location for the investigation

because research has shown that the disproportionate representation of ethnically and racially

diverse students tends to occur more frequently in states where their population is highest

(Parrish, 2002). The researcher analyzed district data to determine whether the national trend of

the representation of ELLs in special education programs and disability categories was also

ocurring in the specifed urban school district in Florida.

Research Questions

This study was guided by the following questions:

1. To what extent are middle school English Language Learners under, equally, or over
   represented in special education programs at the district level compared to non-
   English Language Learners?

2. Which special education categories, if any, demonstrate an over-representation of
   middle school English Language Learners at the district level?

Significance of the Study

Because most of the research in this field has focused on the disproportionate representation of ethnically and racially diverse students, the results of this study have the potential to help policy makers and educators make better informed decisions regarding identification and placement policies of ELLs in special education programs.

With the increasing diversity in Florida, it is imperative for policy makers to examine testing and placement patterns of ELLs in special education programs to help ensure that the best practices are being put in place for English Language Learners. ELLs are often inappropriately identified as needing special education services due to poor performance on tests because of language ability (Obiakor & Utley, 2004, Reschly, 1981, Spinelli, 2008, Ortiz, 1997, Shephard, Smith, & Vojir, 1983), so understanding the representation of ELLs in special education programs can help policy makers make better informed decisions to ensure equal access to education for all students. In addition, this study can help educators become more aware of state policies and linguistic factors that may interfere with the proper referral of ELLs to special education programs, and they can use this knowledge to ensure non-bias assessments, referrals, and placement of ELLs in special education programs are being implemented school-wide.

Defintion of Terms

Terminology in the field of education is ever-changing, and there are often numerous terms for one particular idea or concept. Below are the terms the researcher used for the present study.

1. English Language Learner (ELL)-This acronym was used to refer to students who lived in a home in which a second language, in addition to English, was spoken This included students who were learning English as a second language, students who were bilingual in English an another language, and students who spoke English as a first language but lived in a home where another language was also spoken. Students were identified as an ELL based on their parents' responses to the three questions on the Home Language Survey taken upon school enrollment. The HLS consists of three questions:

    a. Is a language other than English used in the home?

    b. Did the student have a first language other than English?

    c. Does the student most frequently speak a language other than English?

If the parent answered "yes" to any one of the three questions, then their child was assessed to determine their language ability and academic needs. This assessment served as a tool to create an appropriate instructional program for the student. If the parent answered "yes" to only the question "is a language other than English used in the home," then the child was placed in a mainstream instruction classroom. If the parent answered "yes" to either of the other two questions, "did the student have a first language other than English" or "does the student most frequently speak a language other than English" then the child was placed in an ELL program. If a parent responded with a "yes" to any one of the three questions, the child was required to take an aural/oral English proficiency exam (Language Assessment Battery) within twenty days. According to the 2009-2010 ELL Plan (Orange County Public Schools, n.d.) students who scored below the 51st

percentile on the Language Assessment Battery (LAB), were classified as Limited-English Speaking or Non-English Speaking, and they were placed in an ELL instructional program. If the student scored below the 26th percentile, he or she was considered a beginning ESOL student, and if the student scored between the 26th and 50th percentile, the student was considered an intermediate ESOL student. Students who scored above the 51st percentile on the LAB were classified as Fluent English Speaking and were required to take a reading and writing proficiency test (Metropolitan Achievement Test) within the next ten days. Students who scored below the 32nd percentile on the reading or writing portion of the MAT were placed in an appropriate ELL program.

2. Ethnically and Racially Diverse-Earlier researchers used the term "minority" to refer to non-white students. However, researchers have more recently used terms such as "ethnically diverse" to refer to non-white students because of the changing demographics in the United States. The non-white population is on a constant rise, and it is projected that "minority" students will be the majority within a matter of decades. Therefore, the term "racially and ethnically diverse" was used in this study to refer to students who were non-white. *Racially and ethnically diverse* referred only to race and ethnicity; it was not inclusive of home language or socio-economic status.

3. Culturally and Linguistically Diverse (CLD)-This term was used to refer to students who were non-white and whose native language was not English. This term encompassed racially and ethnically diverse students as well as English Language Learners.

4. Individuals with Disabilities Education Act (IDEA)- The Individuals with Disabilities

   Education Act provides continuous support and improvement for students with

   disabilities. IDEA provides early intervention at the state and local levels; it encourages

   the effective use of assessments and teaching methodologies; and it offers Individualized

   Family Service Plans that help in identifying and meeting the individual needs of each

   child who has a disability. Additionally, IDEA supports culturally relevant instruction

   for diverse learners who have learning disabilities.

5. Response to Intervention (RtI)- In 2004, IDEA provisions eliminated the need for a

   student to demonstrate a severe discrepancy between intellectual ability and achievement

   in order to qualify for special education services. As an alternative, many school districts

   began implementing a Response to Intervention program as part of the evaluation process

   in determining students' special education eligibility. "RtI integrates increasingly

   intensive instruction and, at each layer, employs assessment to identify students who are

   inadequately responsive and who therefore require interventions at the next, more

   intensive layer in the system" (Fuchs & Fuchs, 2006, p. 621). RtI helps educators better

   serve special education students because rather than waiting for students to fail before

   offering special education services, RtI monitors student progress, offers early

   intervening services, and evaluates how well students respond to the changes in

   instruction.

6. Mildly Mentally Retarded (MMR)- Mental retardation means significantly sub-average

   general intellectual functioning, existing concurrently with deficits in adaptive behavior

and manifested during the developmental period, that adversely affects a child's educational performance, (Individuals with Disabilities Education Act, 1997). The field of education has replaced the term MMR with the term Intellectual Disabilities, so students who were once classified as MMR now fall under the category of Intellectual Disabilities.

7. High Incidence Disabilities- IDEA identifies thirteen categories of disabilities that students may be identified as, thus qualifying them for special education services: (a) austism, (b) deaf-blindness, (c) deafness, (d) emotional disturbance, (e) hearing impairment, (f) mental retardation, (g) multiple disabilities, (h) orthopedic impairment, (i) other health impairment, (j) specific learning disability, (k) speech or language impairment, (l) traumatic brain injury, (m) and visual impairment. High incidence disabilities include specific learning disabilities, mental retardation, emotional disturbance, and speech or language impairment, (Individuals with Disabilities Education Act, 1997).

8. Specific Learning Disability (SLD)- *SLD* is defined as,

   (i)   A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia.

(ii)   The term does not include learning problems that are primarily the result of visual, hearing or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural or economic disadvantage, Individuals with Disabilities Education Act, 1997).

9. Disproportionality- Disproportionality is defined as "the extent to which membership in a given ethnic group affects the probability of being placed in a specific special education category" (Oswald, Coutinho, Best, & Singh, 1999, p. 198). Disproportionality can be categorized into the over-representation or the under-representation of a particular group in a given category. An over-representation occurs when the representation of a specified subgroup exceeds the general population in a given disability category, while an under-representation occurs when the representation of a specified subgroup is substantially less than the general population in the given disability category.

10. Composition index- The composition index is calculated by "dividing the number of students of a given racial or ethnic group enrolled in a particular disability category by the total number of students…in the same disability category" (Donovan & Cross (2002, p. 43). To determine the composition index of ELLs in special education, the following formula would be used:

$$\text{ELL Composition Index (Special Ed)} = \frac{A}{B} \times 100$$

(1)

A = Number of ELLs in special education

B = Total Number of students enrolled in special education

One must also divide the number of students in the given group by the total population using the following formula:

$$\text{ELL Composition Index (Enrollment)} = \frac{C}{D} \times 100$$

(2)

C = Number of ELLs enrolled

D = Total number of students enrolled

These two percentages are then compared to determine whether an under-representation or an over-representation exists.

11. Odds Ratio- An odds ratio calculates the chances of being assigned to a particular group. For example, dividing the percentage of ELLs enrolled in a special education program by the percentage of ELLs not enrolled in a special education program would determine the odds of an English Language Learner being classified as a special education student. The odds ratio formula is as follows:

$$\text{Odds Ratio} = \frac{E/F}{G/H}$$

<div align="right">(3)</div>

E = Number of students of X ethnicity in Y disability category or placement

F = Number of students of X ethnicity in the student population

G = Number of students of all other ethnicities in Y disability category or placement

H = Number of students of X ethnicity in the student population

12. Risk Index- The risk index can be found by "dividing the number of students in a given racial or ethnic category served in a given disability category by the total enrollment for that racial or ethnic group in the school population" (Donovan & Cross, 2002, pp. 42-43). For example, using a risk index, Donovan and Cross (2002) found that 2.64% of African American students in the nation's public schools who are enrolled in special education programs have been identified as having mental retardation. The equation for risk is as follows:

$$\text{Risk} = \frac{I}{J} \times 100$$

<div align="right">(4)</div>

I= Number of students from ethnic group in disability category

J= Number of enrolled students from ethnic group

13. Relative risk ratio- The risk ratio (RR) is a ratio of the risk of the target group to the non-target group. The relative risk ratio should be calculated after calculating the risk index in order to make the risk index more meaningful. Disproportionality is determined when the ratio is above or below a 1.0. A ratio above a 1.0 indicates an over-representation while a ratio below a 1.0 indicates an under representation. A ratio of 1.0 indicates

proportionality (Skiba et al., 2008). Below is the formula used to calculate relative risk

ratio.

$$\text{Relative Risk} = \frac{K/L}{M/N}$$

K = Number of students in a disability category

L = Number of students in population

M = Number of non-minority students in a disability category

N= Number of non-minority students in population

Limitations of the Study

As with any study, the present study has its limitations. To begin, this study was limited

to only middle school students (grades 6-8) who qualify for special education services in the

specified urban school district. The district chosen for analysis in this study was not random.

Rather, the researcher chose this district based on its large population of English Language

Learners and its proximity to the researcher. Because school districts in the state of Florida and

in the United States have varying representations of English Language Learners, the results of

this study may not be generalizable to all school districts. A final limitation is the source from

which the researcher obtained the data for the present study. Because the researcher received the

data from the school district's Accountability, Research, and Assessment office, the accuracy of

the data is not known.

CHAPTER TWO: LITERATURE REVIEW

Overview

The disproportionate representation of racially and ethnically diverse students in special education was introduced to scholarly literature in the late 1960s. Since then, the literature has shown that this problem persists and is becoming more wide-spread. There has been abundant literature on the disproportionate representation of racially and ethnically diverse students in special education over the past several decades. However, it was only in the past decade that the literature on disproportionality began to focus on language and not just race and ethnicty. Recent studies have shown an increasing number of ELLs in U.S. classrooms and an increasing number of ELLs receiving special education services. During the 2001-2002 school year, approximately 357, 325 English Language Learners were receiving special education services (Zamora, 2009, p. 94). Although the literature investigating the representation of ELLs in special education programs has become more abundant in the past decade, it is still slim when compared to the research on racially and ethnically diverse students in special education.

This literature review begins by addressing disproportionality in special education. Next, the literature review discusses the identification of students as ELLs and is followed by a discussion of the identification of students for referral to special education. The literature review then address factors that may contribute to the disproportionate representation of ELLs in special education. Finally, the literature review concludes by discussing the various methods used to measure disproportionality.

Understanding Disproportionality

Dunn (1968) investigated the disproportionate representation of ethnically and racially diverse students being labeled as mentally retarded. Dunn's study brought attention to students' civil rights in education and gave rise to numerous subsequent studies regarding the over-representation of ethnically and racially diverse students in special education programs. Mercer (1973) investigated the over-representation of African-American and Mexican-American students in special education classes and found that public schools identified and labeled more students as mentally retarded than any other institution serving children. Specifically, ethnically and racially diverse students were referred to special education at about the same rate as their white-counterparts; however, Mexican-American and African-American students were disproportionately placed in special education. Mercer concluded that the disproportionate representation was a result of IQ testing since "three times more Mexican-American and Black children and about twice as many children from lower socioeconomic levels appeared to be failing the intelligence test as would be expected from their proportion in the population of the school district," (p. 122). Subsequently, equal access to education became an increasing concern in the 1970s and the decades that followed. This led to numerous court cases being fought to ensure that all students, regardless of race or ethnicity, received equal access to education. Mills v. The Board of Education in 1972 guaranteed all students, regardless of disability, equal access to education, and the Education for All Handicapped Children Act in 1975 helped states meet the needs of students with disabilities. In the 1984 case of Larry P v. Riles, it was argued that the IQ tests used to place students in special education classes in the public school system in the state of

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California violated federal statutes (Skiba et al., 2008). This resulted in court orders for the state

of California to develop a plan to eliminate the disproportionate number of African American

students enrolled in educable mentally retarded special education classes. Additionally, in the

1980s the U.S. Department of Education Office for Civil Rights began providing data regarding

the disproportionate number of ethnically and racially diverse students enrolled in special

education classes. Although this data did not provide an explanation for the disproportionality, it

brought awareness regarding the extent to which the disproportionality was occurring nation-

wide. However, in 1997 provisions of IDEA took this awareness a step further by requiring

states and districts to investigate solutions to the problem of the over-representation of CLD

students in special education programs. More recently, the provisions of IDEA (2004) required

states to disaggregate data by race, ethnicity, disability category, and special education

placement. The provisions mandate that states must continuously monitor the data, and if a

disproportionate representation is found, the state must review local policies and procedures.

More importantly, if a disproportionate representation is found, local education agencies (LEAs)

are required to allot the maximum amount of Part B funds allowable (15%) to early intervening

programs (Skiba et al., 2008).

   While the court mandates and data provided by the Office of Civil Rights have raised

awareness of the disproportionality, the over-representation of CLD students in special education

programs continues to be one of the most enduring problems in education. To better understand

the trends and patterns of representation among ethnically and racially diverse students in special

education, The U.S. Department of Education has two agencies that report data regarding their

enrollment: The Office of Special Education Programs (OSEP) and the Office for Civil Rights

(OCR). OSEP has reported data for three decades, but the data were never broken down by

racial or ethnic group until more recently. The data reported by OCR, on the other hand, have

always been broken down into five racial and ethnic categories: American Indian/Alaskan

Natives, Asian/Pacific Islander, Hispanic, non-Hispanic whites, and blacks. OCR reports the

risk of students being identified in one of three special education categories: mental retardation

(MR), learning disabilities (LD), and emotional disturbance (ED). According to Donovan and

Cross (2002), a 1998 OCR report showed that blacks were most at-risk for being identified as

MR than any other racial or ethnic category, while Hispanics were more at risk as being

identified as MR than Asian/Pacific Islander. OCR projects that the identification of students as

LD will increase for all racial and ethnic categories except for Asian/Pacific Islander, and the

risk of being identified as ED has been increasing over the years for all five racial and ethnic

categories.

The national trends shown in the OCR reports are reflected in the literature as well;

researchers and scholars have written numerous articles and books reporting the disproportionate

enrollment of ethnically and racially diverse students in special education in many districts in

many states. A study conducted by Hosp and Reschly (2004) showed that a student's

racial/ethnic category is a strong predictor for being referred to and placed in a special education

program. Being classified as Hispanic, African American, or American Indian was a strong

predictor for being identified as ED and LD. In another study, Gottlieb et al. (1994) collected

data on the referral and placement of low-performing students in special education programs in

urban school districts over a ten-year period. Their analysis of the data collected revealed that 95% of the students in the special education population were of a racial or ethnic minority group. Similarly, Oswald et al. (1999) analyzed various school districts' data in the 1992 OCR compliance report, and using an odds ratio, found that African American students were 2.4 times more likely to be identified as MMR than their non-African American counterparts. They also found that 16% of the students in the sample population were African American, yet 21% of the students enrolled in special education programs were African American. This same trend was observed by Manni et al. (1980) as cited in Reschly (1981). Analyzing district data of students in New Jersey revealed that the population was comprised of 7% Hispanic students, yet this group represented 14% of the students identified as MR. African American students comprised 18% of the student population but 43% of the MR population. These figures remind us that the over-representation of CLD students in special education programs has been persistent over the years, for in the 1984 case of Larry P. v. Riles, 10% of the students in California were African American, yet 25% of the students receiving special education services were African American (MacMillan & Reschly, 1998). Not only has the over-representation of CLD students been persistent over the past four decades, the problem is wide-spread. Parrish (2002) noted that not only are African American students the most over-represented racial/ethnic group in special education, but they are over-represented in nearly every state.

While much of the research has focused on the over-representation of African American students in special education programs, there is a growing body of literature showing the over-representation of Hispanic students in special education programs. For example, Ortiz and Yates

(1983) as cited in Ortiz (1997) found that Hispanic students in Texas were over-represented in special education programs by more than 300%. Blanchett et al. (2009) studied the intersection of language and learning disabilities and found that Hispanic students were 1.5 times more likely to be identified as having MR when compared to their White counter-parts.

In recent years, researchers have also begun to put language at the forefront of the investigation, and there has been a growing body of literature investigating the representation of ELLs in special education programs. Artiles et al. (2005) examined the placement pattern of ELLs in urban school districts in California and found that an increasing number of ELLs were being placed in special education programs at the elementary level, and ELLs were considerably over-represented at the secondary level. ELLs were between 1.42 and 2.43 times more likely to be identified and served in a program for students with MMR, LD, or a speech/language impairment when compared to English-speaking students. The results of their study also showed that language proficiency was linked to the likelihood of being classified as LD or MR. ELLs at the secondary level who have limited proficiency in both their native language and in English were more likely to be placed in all high-incidence categories than White, English-proficient peers. The more remarkable finding among this group of students is that ELLs at the secondary level who have limited proficiency in both their native language and in English are actually 46 times more likely to be identified as MR than their white peers. At the elementary level, they found that ELLs who had limited proficiency in their second language were 75% more likely to be identified as LD when compared to their peers who were proficient in English. They also concluded that the amount of language support ELLs received directly correlated to the chances

of being placed in a special education program; ELLs with the least amount of support were more likely to be placed in a special education program than those who received support ESOL instruction.

Finally, a briefing report on minorities in special education issued from the U.S. Commission on Civil Rights (2009) presented findings of various scholars regarding the misplacement of CLD students in special education programs. The information shared in the briefing report was based on a 2007 briefing in which scholars in the field gathered to share their research. They discussed the extent to which CLD students are misplaced in special education programs; they explained some of the possible causes; and they offered solutions on how to resolve the problem. The proceedings of five panelists in particular contribute greatly to this body of literature. Ms. Stephanie Monroe, OCR Assistant Secretary, reported that recent studies have shown that CLD students continue to be over-represented in special education. As a result, OCR has conducted hundreds of compliance reviews and has addressed 144 related complaints. The concerns included teachers referring CLD students for evaluation, but not white students, even though they shared similar characteristics and similar circumstances; using different tests for CLD students and white students; and placing CLD students in pull-out classes while white students are placed in mainstream classes. OCR has found that there were fewer CLD students referred to special education programs following their initiatives addressing the compliance issues. Dr. Gould, Director of Technology and Research at the National Council on Disability, analyzed numerous government reports and attributed the over-representation of CLD students in special education to subjective criteria being used rather than objective criteria. He reported that

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the over-representation is inclusive of blacks, Hispanics, and American Indian/Native Alaskan in special education programs and using objective assessments could help solve the problem. Mr. Hilary Shelton, Director of the NAACP and Mr. William Hurd, a partner of Troutman Sanders, both reported that the over-representation of ELLs in special education is an enduring problem, and they reported possible causes. Shelton attributed the problem to inappropriate referrals and placement, and Hurd attributed the problem to socio-economic factors and lack of parental support. Perhaps the most significant proceedings contributing to this body of literature are from Mr. Peter Zamora, who works with the Regional Counsel for the Mexican American Legal Defense and Education fund. Zamora's report focused solely on the disproportionate representation of ELLs in special education. He reported that "ELLs constitute the fastest-growing subgroup of students in U.S. public schools, with an annual increase of about 10% and a 72% increase between 1992 and 2002" (p. 93). According to Zamora, the cause of the over-representation of ELLs in special education is the misclassification of students due to teachers' lack of trainings in special education and language acquisition. Teachers who lack knowledge and experience in working with diverse students may have difficulty in distinguishing whether low achievement is due to a learning disability or limited English proficiency. This could explain why ELLs who reside in districts where there is a smaller number of ELLs are more likely to be placed in special education than those who reside in districts with large populations of ELLs. To help solve the problem of the over-representation of ELLs students in special education, the panel suggested courses of action including districts screening students before academic problems occur, implementing a pre-referral process, improving education programs

and trainings for teachers on how to deal with diversity, using more objective assessments,

encouraging more parental involvement, offering more options to parents who are not satisfied

with public school services, and increasing federal oversight.

Identification of ELLs

The META Consent Decree of 1990 between the United States District Court and the

Southern District of Florida was passed in order to guarantee students with limited English

proficiency (LEP) equal access to appropriate programs (Florida Department of Education,

2005). The consent decree requires that all LEP students must be appropriately identified in

order to ensure the provision of appropriate services. In accordance with the decree, the first step

that must be taken is that all parents, regardless of background, must complete the Home

Language Survey (HLS) upon enrolling their children in any public school. The HLS consists of

three questions:

    1. Is a language other than English used in the home?

    2. Did the student have a first language other than English?

    3. Does the student most frequently speak a language other than English?

If the parent answers "yes" to any one of the three questions, then their child will be assessed to

determine their language ability and academic needs. This assessment serves as a tool to create

an appropriate instructional program for the student. If the parent answers "yes" to only the

question "is a language other than English used in the home," then the child will be placed in a

regular classroom. If the parent answers "yes" to either of the other two questions, "did the

student have a first language other than English" or "does the student most frequently speak a

language other than English" then the child will be placed in an ELL program. If a parent responds with a "yes" to any one of the three questions, the child must take an aural/oral English proficiency exam (Language Assessment Battery) within twenty days. According to the 2009-2010 ELL Plan (Orange County Public Schools, n.d.) students who score below the 51st percentile on the Language Assessment Batter (LAB), are classified as Limited-English Speaking or Non-English Speaking, and they are placed in an ELL instructional program. If the student scores below the 26th percentile, he or she will be considered a beginning ESOL student, and if the student scores between the 26th and 50th percentile, the student will be considered an intermediate ESOL student. Students in third through twelfth grade who score above the 51st percentile on the LAB are classified as Fluent English Speaking and are required to take a reading and writing proficiency test (Metropolitan Achievement Test) within the next ten days. The student's score on the Metropolitan Achievement Test (MAT) determines whether or not the child will be placed in an ELL program. Students who score below the 32nd percentile on the reading or writing portion of the MAT will be placed in an appropriate ESOL program.

Once the student has been placed in an ESOL program, a Student ELL Plan is developed, and student academic progress is continuously monitored through various tools including student portfolios, Benchmark Assessment Tests, and the Florida Comprehensive Assessment Test (FCAT). All ELL students are required to take the FCAT each year in addition to the Comprehensive English Language Learning Assessment (CELLA). Student scores on the FCAT, CELLA, and LAB tests as well as on grade level academic achievement determine a student's eligibility for exit from the ESOL program. Student eligibility for exiting an ESOL

program is based on the student's achievement on several tests. Students must attain a level three on the FCAT in reading; demonstrate proficiency in listening, speaking, and writing on the CELLA; score higher than the 33rd percentile on the reading and writing sections of the MAT; and a score higher than the 51st percentile on the LAB.

Students who are exited from an ESOL program are placed on monitor for a two-year period. During the monitoring process, the student's academic progress is monitored in terms of their classroom performance, report card grades, and standardized test scores. The ELL committee assigns the student a "satisfactory" or "unsatisfactory" on the first report card, semi-annually for the first year, and again at the end of the two-year period. If the student's progress is consistently satisfactory, the child will no longer need monitoring. If the child has made unsatisfactory progress, the ELL committee must meet to determine which interventions are most appropriate to increase achievement, including re-entering an ESOL program.

ESE Referral Process

Prior to the 1970s, students with disabilities received few academic services and were often denied learning opportunities because there were no established programs to help meet their needs. This all changed in 1972 with Mills v the Board of Education of the District of Columbia which mandated that all states and localities educate students with disabilities. This was followed by Congress enacting the *Education for All Handicapped Children Act* (Public Law 94-142) in 1975 in order to "support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families" (U.S. Department of Education, 2010).

The website states the four purposes of this act:

    1. to assure that all children with disabilities have available to them…a free appropriate public education which emphasizes special education and related services designed to meet their unique needs.

    2. to assure that the rights of children with disabilities and their parents…are protected.

    3. to assist states and localities to provide for the education of all children with disabilities.

    4. to assess and assure the effectiveness of efforts to educate all children with disabilities.

It is currently enacted as the Individuals with Disabilities Education Act (IDEA) with the purpose of providing continuous support and improvement for students with disabilities.

Current procedures for special education referrals in the specified urban school district in Florida begin with a teacher, school personnel, or a parent suspecting a disability and requesting an evaluation of the student in order to determine the student's needs for special education services. If a disability is suspected, general education interventions are implemented; observations are arranged; a form detailing the areas for concern is completed; and parent consent is obtained on the Informed Notice and Consent for Evaluation form. Once these criteria have been met, the evaluation process begins in order to determine whether the student has a disability and what kind of individualized instruction and accommodations need to be provided to the student. The school district's evaluation specialists, which include but are not limited to speech language pathologists, behavior specialists, and school psychologists, are responsible for completing the initial evaluation. The initial evaluation must be completed within sixty school

days and includes the parent providing information regarding the student's adaptive behavior as well as the student taking an intellectual functioning test. The district does not use only one assessment to determine a student's eligibility for special education services; rather, it uses various measurement tools in order to ensure a more accurate evaluation. The school district analyzes the assessments, beahvioral patterns, and developmental information in order to prepare an individual educational plan, or IEP, for the student. According to the Florida Department of Education (2009, p. 30), the assessments and measurement tools used during the evaluation process are:

(1) Selected and administered so as not to discriminate on a racial and cultural basis.

(2) Provided and administered in the student's native language, or other mode of communication, and in the form that most accurately measures what the student knows and can do.

Despite these efforts, the various steps of the referral and evaluation process can lead to the misidentification and mislabeling of ELLs as having special needs. A multitude of factors including teacher beliefs and cultural bias, lack of professional development, and assessments may all contribute to the misidentification of ELLs students in special education programs.

Teacher Beliefs and Cultural Bias

Educating diverse student populations in our nation's classrooms is a daunting task twenty-first century educators face. Understanding and identifying cultural differences has become increasingly challenging for teachers as the student population continues to diversify. In order to deliver relevant instruction in a meaningful manner, it is imperative for teachers to

understand their students and their backgrounds. However, Nieto and Bode (2008) point out that teachers are "frequently unaware of or uncomfortable with their own ethnicity," so it is no surprise that teachers lack knowledge relating to the ethnic, linguistic, and cultural backgrounds of their students. Furthermore, the population of school teachers is "becoming more White, female, and middle class" (Children's Defense Fund, 2004; Trent & Artiles, 2007, as cited in Trent, Kea, & Oh, 2008, p. 329). As student diversity increases and as the teacher population becomes more homogenous, cultural bias in special education referrals and assessments may also be on the rise (Oswald et al., 1999). When teachers are unprepared to deal with diversity, students may be inappropriately referred for special education evaluation or students may not be referred at all when they do qualify for special education services; this is a bi-directional problem.

Teachers who are not prepared to be culturally responsive are challenged in determining whether a student is not showing academic growth because of linguistic factors or because of a learning problem. According to Barerra (2006) this can be challenging for teachers because ELLs and students with learning disabilities often display the same learning characteristics. Both groups of students demonstrate discrepancies between actual academic achievement level and their potential academic achievement level; it can be difficult for teachers to determine the cause of this discrepancy. Klingner et al. (2006) point out that "general education teachers sometimes hesitate to refer ELLs to special education because they cannot determine if ELLs' difficulties with learning to read are due to second language issues or LD" (p. 109). Figueroa (2000) found that ELLs are often not identified as needing special education services when they do in fact

qualify because school employees fear misidentifying or misdiagnosing a student. When this

occurs, the student is deprived of special education services that he or she is entitled to. Not

having access to these services can ultimately lead to poor academic performance. In other

cases, teachers are unsure about the correct time to refer an ELL for special education (Skiba et

al., 2008). As rules and policies continue to change, teachers must continuously be abreast of the

correct procedures to follow. However, when teachers are not up-to-date on the most recent

policies, ELL students are at-risk for an inappropriate referral. For example, if teachers are not

sure if ELLs must attain a certain level of proficiency in English before referring them to special

education, they may wait too long before referring these students. As a result, these children will

be deprived of services to which they are entitled.

Another specific problem that ELLs face is the misconception that they are lacking in

academic skills and intelligence when their problem is only linguistic. Oftentimes, people equate

poor English skills with poor academic skills. As Klingner et al. (2006) remind us, "educators

often misinterpret a lack of full proficiency in English as a second language as a widespread

intelligence deficit or as a language or learning disability" (p. 115). When this occurs, teachers

may refer ELLs for special education evaluation because they believe they have observed the

student as having a learning disability when in fact the problem is only linguistic. In cases where

teachers are unsure of the nature of a culturally and linguistically diverse student's problem, they

often choose to err on the side of caution and refer the student to special education rather than

examining and implementing appropriate interventions for low-achieving ELLs. When this

occurs, it can lead to a disproportionate number of ELLs receiving special education services

when they do not necessarily qualify. In fact, Zamora reported that "in the 2001-2002 school year, up to three-fourths of ELL special education students were improperly placed" (U.S. Commission on Civil Rights, 2009, p.13). This is a call to action. As diversity in the U.S. continues to rise, it is imperative that teachers receive the proper trainings in both special education and in language acquisition in order to effectively meet the needs of the students in their classrooms.

Many of the ELLs in our nation's schools are bright, intelligent students. The reason they do not always do well on assignments, tests, projects, and standardized assessments is not because they are not intelligent; instead, it is due to language barriers (e.g., Spinelli, 2008; Obiakor & Utley, 2004; Kwate, 2001). Therefore, these students should not be treated as inferior or any less capable academically, and they should not be recommended for evaluation for special education services. They can offer a wide variety of knowledge and experiences to the classrooms. Unfortunately, in many cases teachers single them out or make them feel inferior to those who speak standard English. This only leads to negative interactions and consequences for ELLs.

Classrooms must be an environment where students feel comfortable and relaxed and where all children of all backgrounds are given the same educational opportunities. Schools should be a place where all cultures and languages are embraced and praised, and where all students respect one another. When cultural biases and lack of appropriate knowledge regarding ELLs interferes with the proper referral of students who need special education services, the child fails to receive the necessary services to succeed academically. Therefore, this raises the

importance of preparing teachers to teach ELLs and properly identify ELLs who may qualify for special education services. School personnel at all levels, including teachers, administrators, and policy makers, need to ensure that the best practices are being put in place for English Language Learners.

Inadequate Professional Development Opportunities

The problem of teachers feeling unprepared to meet the needs of the diverse learners in their classrooms is not a new one. Multicultural education is rooted in the influx of immigrants in the United States. Multiculturalism started to take form in the 1960's, a period of time in which various political movements were occurring, including racial minority groups and women struggling for more rights and homosexual people fighting for acceptance (Jay, 1997). Since multicultural education started making its way into schools and classrooms, teachers have been challenged to meet the needs of diverse learners, yet teachers often do not feel fully prepared to be culturally responsive. One reason teachers feel unprepared is due to the lack instruction and workshops given to pre-service and in-service teachers respectively. According to Barnes (2006), there is an increase in diversity among students in the United States, but there is still a lack of teacher education programs that teach teachers how to deal with diversity. This lack of cultural knowledge and understanding among teachers causes negative interactions between the teachers and students and does not help in minimizing prejudices and stereotypes. In addition, academic achievement among culturally and linguistically diverse students is suffering because educators are not teaching in a way that is responsive to these students' needs. If pre-service teachers and current teachers were provided with resources for materials and information,

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culturally responsive teaching could increase. According to Brown (2007), teachers and pre-service teachers who are trained, taught, and practice teaching diverse students feel they would be more culturally responsive teachers and would create classrooms free of discrimination. On the other hand, teachers who receive no formal multicultural education training feel uncomfortable addressing racial and cultural issues in the classroom. Unfortunately, this seems to be the case with the majority of our nation's teachers. Consider a survey by the National Center for Education Statistics that found that "just 27 percent of teachers report that they feel well prepared to teach ELLs, and only 12.5 percent of teachers with ELLs in their classrooms have participated in even one day's worth of ELL-related training during the past three years" (Flannery, 2006 as cited in Spinelli, 2008, p. 102). Knowing this, it only seems inevitable that the teachers will not know how to address their students' racial and cultural issues, and ignoring these issues only hinders academic growth among culturally and linguistically diverse students because the students' needs are not being met. Becoming more culturally responsive can help teachers better meet the needs of their diverse students. Many scholars remind us how important it is for teachers to understand the relationship between culture and learning. For example, Donovan and Cross (2002) believe that "teachers should be familiar with the beliefs, values, cultural practices, discourse styles, and other features of student's lives that may have an impact on classroom participation and success" (p. 373). Brown (2007) suggests that teachers should understand the home cultures of their students because academic achievement can increase if educators teach in a way that is responsive to the students' home cultures.

Assessments

Researchers have increased their efforts to understand the cause of the disproportionate representation of ELLs in special education programs and have found that one possible cause is the misclassification due to the assessments being used (e.g., Klingner et al., 2006; Obiakor & Utley, 2004; Reschly, 1981). A great deal of research has been conducted analyzing the validity and reliability of such assessments. Intelligence tests, such as the Wechsler scales and the Binet, are considered to be critical in the determination and classification of students with special needs (Reschly, 1981). However, the over-representation of CLD students who are classified as mild mental retardation (MMR) raises concern regarding the fairness and accuracy of these assessments. This became a larger issue in the 1970s when the use of such assessments to determine special education disability was seen as institutional racism (Jones & Wilderson, 1976). The special education labels assigned to CLD students were embarrassing and became a hindrance to the students' education, yet the over-representation of CLD students assigned the classification of MMR persisted. Reschly (1979) found that CLD students were significantly over-represented; in fact, in some cases CLD students were three or four times more likely to be disproportionately classified as special needs than other population subgroups. As a result, there was a rise in class action court cases during the 1970s among black, Hispanic, and Native American students who were disproportionately classified as MMR. These court cases revolved around the issue of the fairness of the intelligence tests, and most cases in the early 1970s were ruled in favor of the plaintiff or were settled by a consent decree (Reschly, 1979). These court

cases were followed by the *Larry P. v. Riles* case (1984) which ultimately decided that the use of intelligence tests was biased against African American students.

Many researchers have discussed the disadvantages of using intelligence tests to determine special education eligibility. Alfred Binet, the creator of one of the most widely-used assessments, warned against using one single test score as a means of assessing intelligence (Obiakor & Utley, 2004). Binet did not believe that one score alone could completely describe a student's abilities. Kwate (2001) described the uselessness of IQ scores, stating that while they once served a purpose, they now lead to the misidentification and misplacement of students in special education programs. Obiakor & Utley (2004) argued that intelligence assessments, such as IQ tests, are not accurate predictors of the intelligence and the abilities of CLD students. Consequently, inaccurate scores may prevent CLD students from reaching their maximum potential, so using such assessments may do more harm than good. Reschly (1981) did not favor IQ testing either, but he also did not see the test as such a hindrance because the single most determining factor of students being classified and placed in special education programs is academic failure or behavior problems which lead to the referral. It is only once the student exhibits academic or behavior problems in the classroom that he or she is referred for special education testing. Therefore, Reschly argued that the banning of IQ tests "would have little effect on overrepresentation" (p. 1097). Although Reschly supported the fact that a disproportionate number of CLD students are referred to special education because they are exhibiting academic and behavior problems in the classroom, teacher perceptions must not be neglected. Reschly (1981) showed that some students who would have met eligibility

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requirements for special education services were never even referred because the teacher did not observe an academic or behavior problem in the classroom. This suggests that the bias in testing coupled with bias in teacher referrals can ultimately contribute to the disproportionate representation of ELLs in special education.

Because of the issues surrounding the assessment and placement of ELLs in special education programs, some scholars have suggested alternative assessment methods. For example, Spinelli (2008) attributed the disproportionate representation of ELLs in special education programs to misidentification. In order to reduce the misidentification of these students, Spinelli recommended informal assessments in addition to the already existing standardized assessments but with adaptations. Effective forms of informal assessments include curriculum-based assessment, performance-based assessment, dynamic assessment and portfolios. These informal methods of assessment are more authentic, as they allow the students to better demonstrate what they know and what they can do, and they allow teachers to more accurately assess their students' abilities. In another study, Barrera (2006) suggested using curriculum-based measurement or dynamic assessment. In curriculum-based assessment, teachers may use the non-standardized form of assessment in which classroom-based assignments assess a student's capabilities or they may use the standardized form in which specific learning tasks are tested for reliability and validity. With both, the teacher administers a pre-test to collect base-line data, provides instruction, and then administers a post-test to track progress. Dynamic assessment focuses on understanding what students can do as they are being taught, rather than focusing on what the students may or may not already know. It requires

teachers to teach new concepts and collect data to monitor progress. If used correctly, these methods of assessment may help practitioners differentiate between students who are low-achieving and those students who have a learning disability. Furthermore, they may help practitioners better understand whether a student's discrepancy between academic performance and potential is due to a learning disability or language proficiency.

Individuals with Disabilities Education Act

New initiatives and the provisions set forth in IDEA have helped to mitigate the issues concerning assessments and the over-representation of CLD students in special education. IDEA provides early intervention at the state and local level, and it encourages the effective use of assessments and teaching methodologies. Moreover, it offers Individualized Family Service Plans that help in identifying and meeting the individual needs of each child who has a disability, and more importantly, IDEA supports culturally relevant instruction for diverse learners who have learning disabilities. This is achieved through various principles that include maintaining classrooms that reflect and promote cultural diversity, teaching to different learning styles, accommodating to variations in styles of communication, and developing relationships with parents regardless of the language spoken. As a result of IDEA, nearly six million students receive special education services to help meet their academic needs (U.S. Department of Education, 2010). This has led to a higher number of students with disabilities being able to attend their neighborhood schools, an increased graduation rates among students with disabilities, and increased enrollment in post-secondary institutions among students with disabilities.

IDEA has been amended twice (once in 1997 and once in 2004) in order to further increase the success of students with disabilities. The 1997 provision mandated that schools report the progress of students with disabilities to their parents as frequently as they report progress of students who do not have disabilities. Part of the 2004 provisions were created to address the issues of disproportionality and the over-representation of CLD students qualifying for special education services. Specifically, the provisions require that policies and procedures be established in order to prevent the misidentification and over-representation by race and ethnicity as children with disabilities. Local Education Authorities, or LEAs, must provide district data on students who qualify for special education services, and the data must be disaggregated by race and ethnicity. If there is an over-representation of racial and ethnically diverse students qualifying for special education services, then the State must review the data and placement procedures and revise the policies and practices as needed. In addition, the State is now required to monitor the LEAs in order to ensure that the over-representation is not due to misidentification. IDEA 2004 also eliminated the need for a student to demonstrate a severe discrepancy between intellectual ability and achievement in order to qualify for special education services (Klotz & Canter, 2000). As an alternative, many school districts have embraced and implemented a Response to Intervention program as part of the evaluation process in determining students' special education eligibility.

Response to Intervention

Response to Intervention (RtI) is rooted in the common belief that all students, regardless of race or ethnicity, have the ability to learn. The Florida Response to Instruction/Intervention

website (n.d.) defines RtI as "a multi-tiered approach to providing high quality instruction and interventions matched to student needs, using learning rate over time and level of performance to inform instructional decisions." Rather than waiting for students to fail before offering special education services, RtI monitors student progress, offers early intervening services, and evaluates how well students respond to the changes in instruction. RtI, which uses a multi-tiered model of service and delivery, focuses on monitoring student progress, analyzing data to make decisions, and intervening early in order to effectively help all students learn. Tier 1 includes core instruction that is appropriate for all learners and includes differentiated instruction. Tier 2 involves the supplemental instruction that is given in addition to the core instruction and is based on the individual's academic or behavioral needs. The student's progress is closely monitored, and the student generally receives the supplemental instruction in a small group setting. The third tier involves intensive, more frequent intervention that focuses on specific skills. The instruction is delivered by a highly qualified teacher in a small group setting of generally one to five students. Similar to Tier 2, student progress must be closely monitored in Tier 3.

Across the tiers, there is a four-step problem-solving method used to understand the students' educational needs in order to match appropriate instructional resources to meet the need. The first step involves identifying the problem. In other words, what is the discrepancy between what is expected of the child and what is actually occurring? In Step Two, data is analyzed to understand why the discrepancy exists. In the third step, an intervention plan is created to specify the student's goal and how progress will be monitored. The fourth and final step evaluates the extent to which the interventions are working for the student. If student

progress is not being made, the intervention plan must be adjusted to better help meet the child's

learning needs. Not only does following the four-step problem solving method of RtI help

students receive the services they need to succeed before they fail, but it also can help reduce the

number of students who are referred for special education services because it "helps distinguish

between those students whose achievement problems are due to a learning disability versus those

students whose achievement problems are due to other issues such as lack of prior instruction"

(Klotz & Canter, 2000).

The Florida school district where the present study was conducted has adopted the RtI

model, and all schools throughout the district are trained through this model. RtI teams within

each school meet to discuss and address student areas of concern. A classroom teacher is always

part of the RtI team, and the rest of the team may be comprised of guidance counselors, behavior

specialists, speech/language pathologists, school psychologists, or other school personnel

deemed necessary based on the area of concern. Parents are also encouraged to be members of

the RtI team. According to the Florida Department of Education (2009), the RtI team uses the

four-step problem-solving process to address each student's area of concern(s). RtI team

members address the following questions as part of the basic four step-process:

(1) What is the problem?

(2) Why is it occurring?

(3) What are we going to do about it?

(4) Is it working?

The four-step problem-solving process, along with the three tiers, plays an essential role in determining the appropriate instruction and the targeted interventions services. The goal is for the district to provide an infrastructure to every school in the district to help address all student needs and increase student achievement, regardless of racial, ethnic, or linguistic background, through the RtI model.

Measuring Disproportionality

Previous researchers have used a range of methods to understand the disproportionality of specified sub-groups within a given population. The most common methods are descriptive methods which include the composition index, odds ratio, risk index, and relative risk ratio. Although each of these methods report the same data (in different ways), none of the methods give complete information regarding the extent of the disproportionality. Therefore, no one method is recommended over the other. Any one of these methods can be used to determine the extent of disproportionality, if any, of ELLs in special education programs.

One common method for measuring disproportionality is the composition index. According to Donovan and Cross (2002, p. 43), the composition index is calculated by "dividing the number of students of a given racial or ethnic group enrolled in a particular disability category by the total number of students…in the same disability category." One must also divide the number of students in the given group by the total population. These two percentages are then compared to determine whether an over-representation exists. For example, Artiles et al. (2005) used a composition index to identify whether there was a disproportionate representation of ELLs with high incidence disabilities in an urban school district in California. The

composition index suggested that ELLs were not over-represented at the elementary level, but they were over-represented at the secondary level. Although the composition index is a common measurement tool, it is not always accurate. To begin, the size of the racial or ethnic group's percentage of the disability category directly correlates to the size of that group's percentage of the total population. Therefore, an over-representation will not be shown if there is homogeneity of the target group (Westat, 2003). In other words, when a district's population is made up almost entirely of one racial or ethnic group, the composition index will not show disproportionality because the same racial or ethnic group that comprises the majority of the district's population will also comprise the majority of the disability category. For example, if the majority of the students in a given district are Hispanic, then the Hispanic group will also comprise the majority of the disability category. Another disadvantage of using the composition index is that there is no standard number used to identify the proportions as significant (Coutinho et al., 2002). Chinn and Hughes (1987) recommend using a ten percent confidence interval for the total population. For example, if 20% of the students in the sample population are ELLs, an over-representation would be identified if the proportion of ELLs enrolled in a special education was over 22%, and an under representation would be identified at 18%. Coutinho and Oswald (2000) argue against comparing percentages because the percent difference used to determine over-representation is at the discretion of the researcher. One researcher may set the value at 5 points, while another researcher may set a value of 8 points difference.

Disproportionality can also be identified using an odds ratio. The odds ratio calculates the chances of being assigned to a particular group. Oswald et al. (1999) used an odds ratio to

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determine the representation of African American students who were identified as mildly mentally retarded (MMR) and seriously emotionally disturbed (SED) in districts across the country. They found that African American students were 2.4 times more likely to be identified as MMR than their non-African American counterparts, and they were approximately 1.5 times more likely to be identified as SED than non-African American students. However, Coutinho and Oswald (2000) describe the downfalls of using an odds ratio. To begin, some small districts do not have students in the target ethnic group, and this can lead to skewed results. The other problem with the odds ratio is the comparison group. Most researchers use the white students as the comparison group since they usually constitute the majority group, but Coutinho and Oswald suggest that a combination of all other ethnic groups would be "equally defensible on statistical grounds" (2000, p. 138). This could result in a difference in the extent of disproportionality.

Based on the short-comings of the composition index and the odds ratio, many researchers use an alternative method: risk index and a relative risk ratio. This method can be more accurate and eliminates the ambiguity of the composition index and the problems associated with the odds ratio. The risk index can be found by "dividing the number of students in a given racial or ethnic category served in a given disability category by the total enrollment for that racial or ethnic group in the school population" (Donovan and Cross, 2002, pp. 42-43). Using the risk index, Donovan and Cross (2002) found that 2.64% of African American students in the nation's public schools who are enrolled in ESE services have been identified as having mental retardation. However, the relative risk ratio must also be calculated after calculating the risk index in order to make the risk index more meaningful. The risk ratio is a ratio of the risk of

the target group to the non-target group. Disproportionality is determined when the ratio is above or below a 1.0. A ratio above a 1.0 indicates an over-representation while a ratio below a 1.0 indicates an under representation. A ratio of 1.0 indicates proportionality (Skiba et al., 2008). One of the problems with using a risk ratio is using an appropriate comparison group. Similar to an odds ratio, a risk ratio also uses white students as the comparison group because they are the largest group. An alternative again is a combination of all other ethnic groups.   As a result, many researchers prefer using the risk index and the relative risk ratio to determine the extent of disproportionality because the risk ratio is "less sensitive to changes in relative proportions of the population" (Skiba et al., 2008). Likewise, the researcher for the present study also used the risk index and the relative risk ratio to determine the representation of ELLs in special education programs.

Summary of the Research

Disproportionality has been an enduring problem in the field of education for several decades. Studies since the 1960s have consistently shown that there is an over-representation of racially and ethnically diverse students in special education programs. More recent studies have shown that this same trend is also occurring with linguistically diverse students. The research suggests that the over-representation cannot be attributed to one single factor; rather, the research shows a pattern of numerous factors that contribute to the problem: (a) teacher beliefs (b) cultural bias (c) lack of training and professional development opportunities, and (d) assessments. Taking these factors into account, along with the fact that diversity in the United

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States is constantly rising, teachers are even further challenged to recognize whether a student's low achievement is due to a learning disability or linguistic factors.

In order to address the problem of disproportionality, various federal mandates have been implemented. The Office of Special Education Programs the Office for Civil Rights (OCR) report data on the enrollment of ethnically and racially diverse students in special education. The data is broken down by racial and ethnic category in order to better understand the trends and patterns of each group. Congress has enacted the Individuals with Disabilities Education Act (IDEA) with the purpose of providing continuous support and improvement for students with disabilities. Its 2004 provisions require states to continuously monitor data disaggregated by race, ethnicity, disability category, and special education placement. If a disproportionate representation is found, the state must review local policies and procedures to understand why it is occurring. In recent years, many school districts in the U.S have implemented a Response to Intervention model that provides early intervening services to students rather than waiting for the students to fail before offering special education services.

Despite the federal mandates, the continuous monitoring of data, and the research investigating the factors causing the over-representation of CLD students in special education, there are still many questions that remain unanswered. One answer that is still unknown is the extent to which ELLs are over-represented in special education. Many scholars and researchers have begun to analyze state and district data in order to better understand how wide-spread the problem is. The current body of research investigates the representation of ELLs in a large,

urban school district in Florida to determine if the general trend is also occurring in the specified

school district.

CHAPTER THREE: METHODOLGY

Overview

This chapter discusses the methodology used for the present study. It begins by discussing the purpose of the study and the research questions. It then follows with an examination of the design of the study, the research site, and data analysis. The research design of this study involved analyzing data from the specified school district in order to investigate the representation of ELLs in special education and to answer the research questions.

Research Purpose

The purpose of this study was to investigate the representation of middle school ELLs in special education programs in a large, urban school district in Florida. Much of the research in past decades has focused on the representation of ethnically and racially diverse students, and only in the past years have researchers begun to investigate the representaion of ELLs in special education programs. Therefore, this study investigated the representation of ELLs in special education programs in a large, urban school district in Florida to determine if ELLs were under, equally, or over-represented in special education compared to non-ELL peers. Additionally, this study investiaged which disability categories, if any, ELLs were over-represented.

Research Questions

The present study was guided by the following research questions:

1. To what extent are middle school English Language Learners under, equally, or over represented in special education programs at the district level compared to non-English Language Learners?

2. Which special education categories, if any, demonstrate an over-representation of
   middle school English Language Learners at the district level?

Research Site

This study was situated in a large urban school district in Central Florida. The district serves over 173,000 students in its 230 PK-12 schools. Of these 230 schools, 38 were middle schools; 39,587 students comprised the middle school population of sixth, seventh, and eighth graders. The district serves a diverse student population comprised of .1% Hawaiian/Pacific Islander, .5% American Indian/Native American, 2.8% Multiracial, 4.3% Asian, 27.2% Black/African American, 31.8% White, and 33.2% Hispanic middle school students. According to Education Information and Accountability Services (2007), of all school districts in Florida, the district used for the present study demonstrated the largest percentage gain of ELLs in Florida over a ten year period from 1997-2007. In the 2006-2007 school year, 19.7% of students in the district were identified as ELLs. This makes it the district with the highest percentage of ELLs in Florida. Additionally, during the 2010-2011 school year, the district served 9,181 middle school special education students, which represented 23.19% of the total middle school population.

Population and Sampling

The sample used for the present study was a population sample; it included the entire population of the sample. The sample included all sixth, seventh, and eight grade students who had been identified as special education students. Because specified, predefined subjects were

selected due to their identification as a special education student, the sample for the present study was considered a purposive sample.

Subjects

The present study focused on the entire population of middle school students in the district who received special education services, with the target group being the students who were also identified as ELLs. The district's population consisted of 9,181 special education students who were enrolled in the district during the 2010-2011 school year. The sample consisted of 3,065 sixth grade students, 2,945 seventh grade students, and 3,171 eighth grade students. Of the 9,181 students receiving special education services, 2,905 were also identified as English Language Learners. The self-reported ethnic/racial representation of the sample population included 45 American Indian/Native Alaskan; 379 Asian/Pacific Islander; 2,079 Black/African American; 2,660 Hispanic; 255 Multiracial; and 3,763 White. The students' representation in terms of special education category included 58 orthopedically impaired; 388 speech/language impaired; 72 deaf or hard of hearing; 11 visually impaired; 313 emotionally handicapped; 3,839 specific learning disabled; 3,099 gifted; 50 hospital/homebound; 305 autistic; 21 traumatic brain injury; 3 developmentally delayed; 456 other health impaired; and 566 intellectual disabilities.

For the present study, the disability categories of interest included the high incidence disability categories: intellectual disabilities (MMR), specific learning disability (SLD), speech/language impairment (SLI), emotionally disabled (ED), and Other Health Impaired (OHI). Most of the students who are identified as needing special education services fall into

one of the high incidence disability categories. The other categories that have fewer students,

such as orthopedically impaired and deaf or hard or hearing, are considered low incidence

disability categories. These disabilities, along with giftedness, were excluded from analyses in

the current study, as these categories would not yield reliable calculations for the focus of the

study. As a result, the population for the present study consisted of 5,429 students in five special

education categories: speech/language impaired, emotionally handicapped, specific learning

disabled, other health impaired, and intellectual disabilities. Of the 5,429 subjects included in

the sample, 3,952 were English speaking students, 1,238 were Spanish speakers, 133 spoke

Haitian Creole, 16 spoke Vietnamese, 15 were Portuguese speakers, and 15 spoke Arabic. The

remaining 60 students were placed into the home language category "Other" because fewer than

15 students were speakers of that language.

Students in the district were identified as requiring special education services through

various referrals, observations, interventions, and assessments. Each school's ESE staffing

specialist was responsible for evaluating student data, determining a student's eligibility for

special education services, assuring proper placement, and serving as a member of the student's

Individualized Education Plan team to recommend and ensure that the student was receiving the

proper services.

The subjects in the sample were not directly involved in the study, for only student data

was retrieved from the district's database system, Enterprise Data Warehouse (EDW). Student

names and identification numbers were omitted by the Accountability, Research, and

Assessment Department to ensure anonymity. Therefore, when the researcher of the present study obtained the data, there was no indentifying information.

Data Source

The district's Accountability, Research, and Assessment Department assisted the researcher in obtaining the student data. The department pulled the data from the Enterprise Data Warehouse, and created a data set to help address the research questions for the present study. The variables included in the data set were school name, school number, student's grade level, ESE primary exceptionality, ELL status, ethnicity, home language, and CELLA score.

Data Analysis

To begin the analysis, the researcher used cross tabulations and chi square tests in order to examine the distribution of special education students with the variables of ESE exceptionality, ethnicity, ESOL status, home language, and English proficiency. Then, the researcher used a risk index and a relative risk ratio to examine the representation of ELLs in special education. These statistics were used to determine whether there was an under, equal, or over-representation of ELLs in special education, and the statistics also showed the specific categories in which ELLs were disproportionately represented.

First, the risk index was calculated to determine the probability of district middle school students receiving special education services based on ESOL status, English proficiency level, and home language. The risk index is represented with the following formula:

$$\text{Risk} = \frac{I}{J} \times 100$$

<div align="right">(6)</div>

I= Number of students from ethnic group in disability category

J= Number of enrolled students from ethnic group

Then, the relative risk ratio was calculated after calculating the risk index in order to make the

risk index more meaningful. The relative risk ratio is a ratio of the risk of the target group to the

non-target group. For this study, the target group was ELLs in special education, and the non-

target group was non-ELLs in special education. Consistent with research (Westat, 2003), when

calculating the relative risk ratio, disproportionality is determined when the ratio is above or

below a 1.0. A ratio above a 1.0 indicates an over-representation while a ratio below a 1.0

indicates an under representation. A ratio of 1.0 indicates proportionality. The formula for the

relative risk ratio is as follows:

$$\text{Relative Risk} = \frac{K/L}{M/N}$$

<div align="right">(7)</div>

K = Number of students in a disability category

L = Number of students in population

M = Number of non-minority students in a disability category

N= Number of non-minority students in population

Assumptions and Limitations

The researcher began this study with a few assumptions. To begin, the researcher

assumed that the Comprehensive English Language Learning Assessment (CELLA), the

language proficiency test used by Florida to measure the progress of English Language Learners,

<div align="center">53</div>

is a valid and reliable test. The researcher also assumed that identifying ELLs for special education is problematic and that ELLs would likely be over-represented in special education. The researcher assumed that ELLs would be over-represented specifically in high incidence disability categories because most students who are identified as needing special education services are placed in one of high incidence disability categories.

One of the limitations of this study was the generalizability of the results. Because school districts in the state of Florida and in the United States have varying representations of English Language Learners, the results of this study may not be generalizable to all school districts. The results are more likely to be generalizable to school districts who have similar demographics and populations. However, the greatest limitation of this study is that the data analyses cannot show why ELLs are disproportionately represented in special education programs nor do the analyses explain how to provide an equal access to education for all students. Rather, the data analyses can only reveal the patterns of representation among ELLs in special education programs, and school personnel at all levels can use this knowledge to improve the process of identification and placement of students in special education programs.

CHAPTER FOUR: RESULTS

Overview

This chapter provides the results of the quantitative analyses used to answer the research questions. The chapter begins by presenting the findings of the frequencies, cross tabulations, and chi square tests which were used to examine the language representation of English Language Learners in special education as well as the correlation between English language proficiency and learning disability. The chapter then presents the findings of the risk index and the relative risk ratio, which were used to determine whether there was an under, equal, or over-representation of ELLs in special education, and thus answering the investigator's first question: to what extent are middle school English Language Learners under, equally, or over represented in special education programs at the district level compared to non-English Language Learners? The results of the statistical analyses also showed the specific categories in which ELLs were over-represented, thus answering the investigation's second research question: Which special education categories, if any, demonstrate an over-representation of middle school English Language Learners at the district level?

Special Education Sample: Frequencies

The researcher began by analyzing the descriptive statistics of the sample using the most current data from the district, which was from March, 2011. The sample for the present investigation included the district's middle school 6-8 grade students who were identified as having a high incidence disability. These disabilities included intellectual disabilities (MMR), specific learning disability (SLD), speech/language impairment (SLI), emotionally disabled

(ED), and Other Health Impaired (OHI). The district had a total of 5,429 students who were

identified as having a high incidence disability, as shown in Table 1. The majority of the

students identified as having a high incidence disability were classified as Specific Learning

Disabled. Of the sample population, 3,840 or 70.73% were identified as SLD; 567 or 10.44%

were identified as MMR; 457 or 8.42% were identified as OHI; 314 or 5.78% were identified as

ED; and 251 or 4.62% were identified as SLI.

Table 1 Representation of Middle School Students Assigned to Each High Incidence Disability Category

	NUMBER	PERCENT
INTELLECTUAL DISABILITIES	567	10.44%
LANGUAGE IMPAIRED	251	4.62%
EMOTIONALLY HANDICAPPED	314	5.78%
SPECIFIC LEARNING DISABLED	3840	70.73%
OTHER HEALTH IMPAIRED	457	8.42%
TOTAL	5429	100%

The ethnic/racial representation of the sample for this study is shown in Table 2.   The

majority of the middle school students identified as having a high incidence disability were

Hispanic, Black/African American, or White and were represented as follows: 1,900 or 35%

Hispanics; 1,661 or 30.59% Black/African American students; 1,630 or 30.02% Whites; 128 or

2.36% Multiracial students; 86 or 1.58% Asian/Pacific Islanders; and 24 or .44% American

Indian/Native Alaskan students.

Table 2 Ethnic/Racial Representation of the District's Middle School Students Identified as Having a High Incidence Disability

	NUMBER	PERCENT
WHITE	1630	30.02%
BLACK/AFRICAN AMERICAN	1661	30.59%
HISPANIC	1900	35.00%
ASIAN/PACIFIC ISLANDER	86	1.58%
AMERICAN INDIAN	24	0.44%
MULTIRACIAL	128	2.36%
TOTAL	5429	100%

Additionally, the sample consisted of 1,759 or 32.40% English Language Learners and 3,670 or 67.60% non-English Language Learners. The majority of the students who did not have English as a home language were Spanish speakers (22.8%) followed by Haitian-Creole (2.45%). The home languages of the students, which are shown in Table 3, were distributed as follows: 3,952 had English as their home language, 1,238 had Spanish as their home language, 133 had a home language of Haitian Creole, 16 students had a home language of Vietnamese, 15 students' home language was Portuguese, and 15 students had Arabic as their home language. CELLA score reports were not available for 724 of the ELLs; as a result, the proficiency levels of the ELLs in special education are based off of 1,035 ELLs. Of this sample, 74 or 7.15% of the ELL students tested at the Beginning ESOL level based on their Speaking proficiency scale score on the CELLA exam; 234 or 22.61% tested at the Low Intermediate level, 245 or 23.67% tested at the High Intermediate level, and 482 or 46.57% tested at the Advanced level.

Table 3 Home Language Representation of the District's Middle School Students Identified as Having a High Incidence Disability

	NUMBER	PERCENT
ENGLISH	3952	72.79%
SPANISH	1238	22.80%
HAITIAN CREOLE	133	2.45%
VIETNAMESE	16	0.29%
PORTUGUESE	15	0.28%
ARABIC	15	0.28%
OTHER	60	1.10%
TOTAL	5429	100%

Special Education Sample: Cross-Tabulations

Four cross-tabulations were calculated on the 5,429 middle school special education students. The first cross-tabulation used the variables of Special Education Category and Ethnic/Racial group. The results of this cross-tabulation are shown in Table 4 and Table 5. The Specific Learning Disabilities category had the highest concentration of students in all ethnic/racial categories when compared to the other special education categories, as shown in Table 4.

Table 4 Percentage of Students from Each Ethnic/Racial Group Assigned to Each High Incidence Special Education Category in the Large Urban School District in 2011

	WHITE	BLACK	HISPANIC	ASIAN	MULTI	INDIAN	TOTAL
INTELLECTUAL DISABILITIES	6.26%	17.28%	7.79%	18.60%	10.16%	4.17%	10.44%
LANGUAGE IMPAIRED	3.56%	6.32%	3.89%	6.98%	4.69%	8.33%	4.62%
EMOTIONALLY HANDICAPPED	4.42%	10.23%	3.37%	3.49%	1.56%	12.50%	5.78%
SPECIFIC LEARNING DISABLED	75.34%	58.58%	77.58%	65.12%	73.44%	62.50%	70.73%
OTHER HEALTH IMPAIRED	10.43%	7.59%	7.37%	5.81%	10.16%	12.50%	8.42%
TOTAL	100%	100%	100%	100%	100%	100%	

All of the High Incidence Special Education categories showed a higher concentration of students whose ethnic representation was White, Black, and Hispanic, as shown in Table 5. For example, of the 567 students identified as being Intellectually Disabled, Black and Hispanic students represented the largest totals, with 287 or 50.62% and 148 or 26.10% respectively. Black and Hispanic students also represented the largest totals of the 251 Language Impaired students with 105 or 41.83% and 74 or 29.48% respectively. Hispanic and White students represented the largest total of the 3,840 Specific Learning Disabled students with 1,474 students or 38.39% and 1,228 or 31.98% respectively.

Table 5 Number of Students by Ethnic/Racial Group in High Incidence Special Education Categories in the Large Urban School District in 2011

	WHITE	BLACK	HISPANIC	ASIAN	MULTI	INDIAN	TOTAL
INTELLECTUAL DISABILITIES	102	287	148	16	13	1	567
	17.99%	50.62%	26.10%	2.82%	2.29%	0.18%	
LANGUAGE IMPAIRED	58	105	74	6	6	2	251
	23.11%	41.83%	29.48%	2.39%	2.39%	0.80%	
EMOTIONALLY HANDICAPPED	72	170	64	3	2	3	314
	22.93%	54.14%	20.38%	0.96%	0.64%	0.96%	
SPECIFIC LEARNING DISABLED	1,228	973	1,474	56	94	15	3,840
	31.98%	25.34%	38.39%	1.46%	2.45%	0.39%	
OTHER HEALTH IMPAIRED	170	126	140	5	13	3	457
	37.20%	27.57%	30.63%	1.09%	2.84%	0.66%	
TOTAL	1,630	1,661	1,900	86	128	24	5,429

A Pearson Chi-square test was also run in order to analyze the correlation between Special Education Category and Ethnic/Racial Group. The null hypothesis was that there was no significant difference between the two categories. The results of the Chi-square test showed that there was a significant difference ($\chi^2 = 293.299$, p < .001). Because p < .001, the null hypothesis was rejected. This indicates that there is less than a 1% chance that chance alone is causing the deviation, thus indicating that other factors are contributing to the deviation.

The second cross-tabulation analyzed the variables of Special Education Category and ELL status. The results are presented in Table 6 and Table 7. Table 6, which shows the percentage of ELLs and non-ELLs assigned to each high incidence disability category, shows that that ELLs (77.89%) and non-ELLs (67.30%) were most commonly identified as Specific Learning Disabled (77.89%) when compared to other high incidence disability categories. ELLs were least represented in the special education categories of Emotionally Handicapped (3.07%) and Other Health Impaired (5.91%) while non-ELLs were least identified as being Language Impaired (4.62%) and Emotionally Handicapped (5.78%).

Table 6 Percentage of ELLs and non-ELLs Assigned to Each High Incidence Special Education Category in the Large Urban School District in 2011

	ELL	NON-ELL	TOTAL
INTELLECTUAL DISABILITIES	8.58%	11.34%	10.44%
LANGUAGE IMPAIRED	4.55%	4.66%	4.62%
EMOTIONALLY HANDICAPPED	3.07%	7.08%	5.78%
SPECIFIC LEARNING DISABLED	77.89%	67.30%	70.73%
OTHER HEALTH IMPAIRED	5.91%	9.62%	8.42%
TOTAL	100%	100%	

Table 7 shows the number of ELLs and non-ELLs assigned to each of the high incidence disability categories. Of the 5,429 special education students, 1,759 were English Language Learners and 3,670 were non-ELLs. The non-ELLs had a higher number and a greater percentage of students assigned to each of the five high incidence disability categories. For example, of the 567 students identified as Intellectually Disabled, 416 were non-ELLs and 151 were ELLs. Both ELLs and non-ELLs were mostly identified as Specific Learning Disabled. Of the 3,840 students identified as Specific Learning Disabled, 2,470 were non-ELLs while 1,370 were ELLs.

Table 7 Number of ELLs and non-ELLs in High Incidence Special Education Categories in the Large Urban School District in 2011

	ELL	NON-ELL	TOTAL
INTELLECTUAL DISABILITIES	151	416	567
	26.63%	73.37%	
LANGUAGE IMPAIRED	80	171	251
	31.87%	68.13%	
EMOTIONALLY HANDICAPPED	54	260	314
	17.20%	82.80%	
SPECIFIC LEARNING DISABLED	1,370	2,470	3,840
	35.68%	64.32%	
OTHER HEALTH IMPAIRED	104	353	457
	22.76%	77.24%	
TOTAL	1,759	3,670	5,429

A Pearson Chi-square test was also run in order to analyze the correlation between Special Education Category and ELL Status. The null hypothesis was that there was no significant difference Special Education Category and ELL Status. The results of the Chi-square test showed that there was a significant difference ($\chi^2 = 80.010$, $p < .001$). Because $p < .001$, the null hypothesis was rejected.

The third cross-tabulation analyzed the variables of Special Education Category and English Proficiency Levels. The findings of this cross-tabulation are presented in Table 8 and Table 9. The 1,035 ELLs for which CELLA scores were reported were accordingly placed into one of four proficiency levels based on their CELLA speaking scores: Beginning, Low Intermediate, High Intermediate, and Advanced. The Advanced proficiency level comprised the largest of the ELL population with 482 or 46.57% of the special education population of ELLs, as shown in Table 8. There were 245 or 23.67% special education ELLs in the High Intermediate category, and 234 or 22.61% ELLs in the Low Intermediate category. Seventy-four or 7.15% of the special education ELLs were placed at the Beginning proficiency level. ELLs in the Low Intermediate, High Intermediate, and Advanced proficiency levels comprised the majority of the ELLs in all five high incidence disability categories.

Table 8 Number of Students by English Proficiency Level in High Incidence Special Education Categories in the Large Urban School District in 2011

	BEGINNING	INTERMEDIATE LOW	INTERMEDIATE HIGH	ADVANCED	TOTAL
INTELLECTUAL DISABILITIES	16 34.78%	21 45.65%	4 8.70%	5 10.87%	46
LANGUAGE IMPAIRED	1 2.22%	8 17.78%	18 40.00%	18 40.00%	45
EMOTIONALLY HANDICAPPED	0 0.00%	6 28.57%	8 38.10%	7 33.33%	21
SPECIFIC LEARNING DISABLED	56 6.53%	184 21.45%	198 23.08%	420 48.95%	858
OTHER HEALTH IMPAIRED	1 1.52%	15 22.73%	17 27.27%	32 48.48%	65
TOTAL	74	234	245	482	1,035

Table 9 shows the percentage of students from each ELL proficiency level assigned to each disability category. The Specific Learning Disabled special education disability category had the highest percentage of ELLs in all levels of proficiency. Approximately 76% of Beginning special education ELLs were Specific Learning Disabled, approximately 86% of the Low Intermediate ELLs fell into this category, and 80.82% and 87.14% of the High Intermediate and Advanced ELLs respectively were identified as Specific Learning Disabled. The other four special education categories had less than a 10% representation among all proficiency levels except for the Beginning level students identified as being Intellectually Disabled. Approximately 22% of Beginning ELLs were assigned to the Intellectual Disabilities special education category.

Table 9 Percentage of Students from Each English Proficiency Level Assigned to Each High Incidence Special Education Category in the Large Urban School District in 2011

	BEGINNING	LOW INTERMEDIATE	HIGH INTERMEDIATE	ADVANCED	TOTAL
INTELLECTUAL DISABILITIES	21.62%	0.00%	1.63%	1.04%	2.47%
LANGUAGE IMPAIRED	1.35%	3.76%	7.35%	3.73%	4.44%
EMOTIONALLY HANDICAPPED	0.00%	2.82%	3.27%	1.45%	2.07%
SPECIFIC LEARNING DISABLED	75.68%	86.38%	80.82%	87.14%	84.62%
OTHER HEALTH IMPAIRED	1.35%	7.04%	6.94%	6.64%	6.41%
TOTAL	100%	100%	100%	100%	100%

In order to analyze the correlation between Special Education Category and English Proficiency Level, a Pearson Chi-square test was run. The null hypothesis was that there was no significant difference between the Special Education Category and English Proficiency Level. The results of the Chi-square test showed that there was a significant difference ($\chi^2 = 94.113$, p < .001). Because p < .001, the null hypothesis was rejected. Therefore, there is less than a 1% chance that chance alone is causing the deviation.

The fourth cross-tabulation analyzed the variables of Special Education Category and Home Language. Table 10 and Table 11 present the findings from this cross-tabulation. Table 10 shows the number of students in each special education category by home language. The findings show that 3,952, or 72.8%, of the special education students spoke English as a first language. The language with the most representation among the non-native speakers of English was Spanish, with 1,238 students or 22.8% of the special education population, followed by Haitian-Creole, with 133 students or 2.45 % of the special education population. All other languages had 16 or fewer students who were identified as native speakers of that language.

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Languages that had fewer than 15 students who were in special education were grouped together in the category "Other." The majority of the students in each of the special education categories were English speakers, while Spanish speakers showed the next largest representation. For example, 71.43% of the Intellectually Disabled students were English speakers while 20.99% were Spanish speakers. Similarly, 70.49% of the students identified as Specific Learning Disabled were English speakers while 25.49% were identified as Spanish speakers.

Table 10 Number of Students by Home Language in High Incidence Special Education Categories in the Large Urban School District in 2011

	ENGLISH	SPANISH	HAITIAN CREOLE	VIETNAMESE	PORTUGUESE	ARABIC	OTHER	TOTAL
INTELLECTUAL DISABILITIES	405 71.43%	119 20.99%	24 4.23%	2 0.35%	2 0.35%	3 0.53%	12 2.12%	567
LANGUAGE IMPAIRED	181 72.11%	44 17.53%	19 7.57%	1 0.40%	0 0.00%	1 0.40%	5 1.99%	251
EMOTIONALLY HANDICAPPED	282 89.81%	22 7.01%	4 1.27%	1 0.32%	1 0.32%	0 0.00%	4 1.27%	314
SPECIFIC LEARNING DISABLED	2,707 70.49%	979 25.49%	83 2.16%	12 0.31%	12 0.31%	10 0.26%	37 0.96%	3,840
OTHER HEALTH IMPAIRED	377 82.49%	74 16.19%	3 0.66%	0 0.00%	0 0.00%	1 0.22%	2 0.44%	457
TOTAL	3,952	1,238	133	16	15	15	60	5,429

Table 11 shows the percentages of students from each home language assigned to each of the special education learning disability categories. The Specific Learning Disability category had the highest percentage of students across all home languages. For example, 68.5% of English speaking students identified as having a learning disability were assigned to the Specific Learning Disabled category. Similarly, 79.08% of Spanish speakers and 62.41% of Haitian

Creole special education students were assigned to the Specific Learning Disability special

education category.

Table 11 Percentage of Students from Each Home Language Assigned to Each High Incidence Special Education
Category in the Large Urban School District in 2011

	ENGLISH	SPANISH	HAITIAN CREOLE	VIETNAMESE	PORTUGUESE	ARABIC	OTHER	TOTAL
INTELLECTUAL DISABILITIES	10.25%	9.61%	18.05%	12.50%	13.33%	20.00%	20.00%	10.44%
LANGUAGE IMPAIRED	4.58%	3.55%	14.29%	6.25%	0.00%	6.67%	8.33%	4.62%
EMOTIONALLY HANDICAPPED	7.14%	1.78%	3.01%	6.25%	6.67%	0.00%	6.67%	5.78%
SPECIFIC LEARNING DISABLED	68.50%	79.08%	62.41%	75.00%	80.00%	66.67%	61.67%	70.73%
OTHER HEALTH IMPAIRED	9.54%	5.98%	2.26%	0.00%	0.00%	6.67%	3.33%	8.42%
TOTAL	100%	100%	100%	100%	100%	100%	100%	

In order to understand the correlation between Special Education Category and Home

Language, a Pearson Chi-square test was run. The null hypothesis was that there was no

significant difference between the two categories. The results of the Chi-square test showed that

there was a significant difference ($\chi^2 = 139.722$, p < .001). Because p < .001, the null

hypothesis was rejected.

Risk Index and Relative Risk Ratio

Next, the risk index and the relative risk ratio were calculated in order to compare the risk

of various language groups being placed in the five high incidence special education categories.

The risk index indicates the probability of a specific ethnic/racial group receiving special

education services when compared to the risk for all other students. The risk index is calculated

by dividing the total number of students from a given ethnic/racial group in a disability category

by the total population for that ethnic/racial group. The relative risk ratio (RR) was calculated

after finding the risk index in order to make the index more meaningful. The relative risk ratio

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calculates the extent of disproportionality, if any, between the two groups. It is calculated by

dividing the number of students in a given disability category by the number of students in the

total population, and then dividing that number by the number of non-minority students in the

given disability category by the number of non-minority students in the total population. Once

calculated, a ratio above a 1.0 indicates an over-representation while a ratio below a 1.0 indicates

an under representation. A ratio of 1.0 indicates proportionality.

The first two variables analyzed for risk and relative risk ratio were ESOL status and

special education disability category. Table 12, which shows the risk of ELLs and non-ELLs

being identified as having a high incidence disability, shows that both ELLs and non-ELLs were

at the greatest risk for being identified as Specific Learning Disabled. ELLs had a risk index of

10.44% in the Specific Learning Disabled category, and non-ELLs has a risk index of 9.24%.

Table 12 Risk Index for Special Education Students by ESOL Status

	ELL	NON-ELL
INTELLECTUAL DISABILITIES	1.15%	1.56%
LANGUAGE IMPAIRED	0.61%	0.64%
EMOTIONALLY HANDICAPPED	0.41%	0.97%
SPECIFIC LEARNING DISABLED	10.44%	9.24%
OTHER HEALTH IMPAIRED	0.79%	1.32%

Table 13, which shows the Relative Risk Ratio of ELLs versus non ELLs with high

incidence disabilities, reveals that the district's ELLs were slightly over-represented in the most

populated special education category, Specific Learning Disabled. ELLs are 1.13 times more

likely to be identified as Specific Learning Disabled than the non-ELLs. On the other hand,

ELLs showed an under-representation in three of the high incidence disability categories:

Intellectual Disabilities (RR = 0.74); Emotionally Handicapped (RR = 0.42); and Other Health

Impaired (RR = 0.6).

Table 13 Relative Risk Ratio for Special Education Students by ESOL Status

	ELL	NON-ELL
INTELLECTUAL DISABILITIES	151 0.74	416 1.35
LANGUAGE IMPAIRED	80 0.95	171 1.05
EMOTIONALLY HANDICAPPED	54 0.42	260 2.36
SPECIFIC LEARNING DISABLED	1,370 1.13	2,470 0.88
OTHER HEALTH IMPAIRED	104 0.6	353 1.67
TOTAL POPULATION	13,117	26,732

The second set of variables analyzed for risk and relative risk ratio were English

proficiency level and special education disability category. The risk indices in Table 14 showed

that ELLs at all proficiency levels had the highest probability of being identified as Specific

Learning Disabled. The results showed that 23.87% of Low Intermediate ELL students were

identified as Specific Learning Disabled; 17.25% of High Intermediate ELLs were identified as

Specific Learning Disabled; 15.73% of Beginning level ELL students were identified as Specific

Learning Disabled; and 9.15% Advanced ELLs were identified as Specific Learning Disabled.

ELLs at the intermediate level had the highest risk indices in four of the five categories, showing

that ELLs with an intermediate proficiency level of English were at the greatest risk for being

identified as having a high incidence disability.

Table 14 Risk Index for Special Education Students by English Proficiency Level

	BEGINNING	LOW INTERMEDIATE	HIGH INTERMEDIATE	ADVANCED
INTELLECTUAL DISABILITIES	4.49%	2.72%	0.35%	0.11%
LANGUAGE IMPAIRED	0.28%	1.04%	1.57%	0.39%
EMOTIONALLY HANDICAPPED	0.00%	0.78%	0.70%	0.15%
SPECIFIC LEARNING DISABLED	15.73%	23.87%	17.25%	9.15%
OTHER HEALTH IMPAIRED	0.28%	1.95%	1.48%	0.70%

The Relative Risk Ratios of ELLs being placed in special education based on their proficiency

levels are shown in Table 15. ELLs with Low Intermediate and High Intermediate levels of

English proficiency showed the greatest over-representation. Specifically, the results showed

that Low Intermediate ELLs were over-represented in all five high incidence disability

categories. The relative risk ratios revealed that Low Intermediate ELLs were 6.6 times more

likely (RR = 6.64) to be identified as Intellectually Disabled; 1.7 times more likely (RR = 1.71)

to be identified as Language Impaired; 3.1 times more likely (RR = 3.16) to be identified as

Emotionally Handicapped; 2.1 times more likely (RR = 2.16) to be identified as Specific

Learning Disabled; and 2.3 times more likely (RR = 2.37) to be identified as Other Health

Impaired. Similarly, High Intermediate ELLs were over-represented in four of the five high

incidence disability categories: Language Impaired (RR = 3.32); Emotionally Handicapped (RR

= 3.07); Specific Learning Disabled (RR = 1.49); and Other Health Impaired (RR = 176).

Beginning ELLs were over-represented in just two of the five high incidence disability

categories: Intellectual Disabilities (RR = 9.75) and Specific Learning Disabled (RR = 1.28).

However, Advanced ELLs were not over-represented in any of the high incidence disability

categories, with relative risk ratios below a 1.0 in all special education high incidence disability

categories.

Table 15 Relative Risk Ratio for Special Education Students by English Proficiency Level

	BEGINNING	LOW INTERMEDIATE	HIGH INTERMEDIATE	ADVANCED
INTELLECTUAL DISABILITIES	16 9.75	21 6.64	4 0.47	5 0.06
LANGUAGE IMPAIRED	1 0.42	8 1.71	18 3.32	18 0.33
EMOTIONALLY HANDICAPPED	0 0	6 3.16	8 3.07	7 0.25
SPECIFIC LEARNING DISABLED	56 1.28	184 2.16	198 1.49	420 0.48
OTHER HEALTH IMPAIRED	1 0.29	15 2.37	17 1.76	32 0.48
TOTAL POPULATION	356	771	1,148	4,591

The final two variables analyzed for risk and relative risk ratio were home language and

special education disability category. Table 16, which shows the risk indices for special

education students by home language, showed that the district's middle school special education

students from all home languages were at the greatest risk for being placed in the Specific

Learning Disabled category. Approximately 11.83% of the district's middle school Spanish

speaking students were identified as Specific Learning Disabled; 9.63% English speaking

students were identified as Specific Learning Disabled; 5.35% Haitian-Creole speaking students

were identified as Specific Learning Disabled; 5.02% Portuguese speakers were identified as

Specific Learning Disabled; 4.9% Arabic speaking students were identified as Specific Learning

Disabled; and 3.23% of the Vietnamese speaking students were identified as Specific Learning

Disabled.

Table 16 Risk Index for Special Education Students by Home Language

	ENGLISH	SPANISH	HAITIAN CREOLE	VIETNAMESE	PORTUGUESE	ARABIC	OTHER
INTELLECTUAL DISABILITIES	1.44%	1.44%	1.55%	0.54%	0.84%	1.47%	1.10%
LANGUAGE IMPAIRED	0.64%	0.53%	1.23%	0.27%	0.00%	0.49%	0.46%
EMOTIONALLY HANDICAPPED	1.00%	0.27%	0.26%	0.27%	0.42%	0.00%	0.37%
SPECIFIC LEARNING DISABLED	9.63%	11.83%	5.35%	3.23%	5.02%	4.90%	3.39%
OTHER HEALTH IMPAIRED	1.34%	0.89%	0.19%	0.00%	0.00%	0.49%	0.18%

The Relative Risk Ratios for special education students by home language are shown in

Table 17. The results showed that Spanish speaking students were 1.2 times more likely (RR =

1.26) to be identified as Specific Learning Disabled, and Haitian-Creole speaking students were

1.9 times more likely (RR = 1.98) to be identified as Language Impaired. Table 16 also showed

that students with a home language of Vietnamese, Portuguese, Arabic, or Other have relative

risk ratios below a 1.0 in all five high incidence special education learning disability categories.

Therefore, they are not at risk for being identified as having a high incidence disability. Haitian-

Creole speaking students are not at-risk for being identified as Emotionally Handicapped (RR = 0.32), Specific Learning Disabled (0.55), or Other Health Impaired (0.17). Spanish speaking students are not at-risk for being identified as Language Impaired (0.83), Emotionally Handicapped (0.31), or Other Health Impaired (0.76).

Table 17 Relative Risk Ratio for Special Education Students by Home Language

	ENGLISH	SPANISH	HAITIAN CREOLE	VIETNAMESE	PORTUGUESE	ARABIC	OTHER
INTELLECTUAL DISABILITIES	405 1.04	119 1.01	24 1.09	2 0.38	2 0.59	3 1.03	12 0.77
LANGUAGE IMPAIRED	181 1.08	44 0.83	19 1.98	1 0.43	0 0	1 0.78	5 0.72
EMOTIONALLY HANDICAPPED	282 3.68	22 0.31	4 0.32	1 0.34	1 0.53	0 0	4 0.46
SPECIFIC LEARNING DISABLED	2,707 1	979 1.26	83 0.55	12 0.33	12 0.52	10 0.51	37 0.35
OTHER HEALTH IMPAIRED	377 1.97	74 0.76	3 0.17	0 0	0 0	1 0.43	2 0.16
TOTAL POPULATION	28,120	8,274	1,550	372	239	204	1,090

Summary of Results

The results of the frequencies showed that the largest percentage of students in special education were identified as Specific Learning Disabled, and the results of the relative risk ratios revealed that ELLs were at the greatest risk for being identified as Specific Learning Disabled. The distribution of the population among the ethnic/racial categories showed that the majority of the students were Hispanic, Black, or White, with relatively equal distribution among these three categories. In terms of home language, the majority of the students in the sample population had English as their home language. Among students who did not have English has their home

language, Spanish was the most common home language followed by Haitian-Creole. The

results of the cross-tabulations showed that there was a higher percentage of students in the high

incidence disability categories who were White, Black, and Hispanic. The results also showed

that there was a higher percentage of ELLs and non-ELLs identified as Specific Learning

Disabled when compared to the other high incidence special education categories. The majority

of the ELLs had a proficiency level of Advanced, yet Advanced ELLs were not over-represented

in any of the five high incidence disability categories. It was ELLs at the intermediate levels

who were at the greatest risk for being identified has having a high incidence disability. The

relative risk ratios also revealed that students with a home language of Spanish were most at-risk

for being identified as Specific Learning Disabled, and students with a home language of

Haitian-Creole were most at-risk for being identified as Language Impaired. Table 18

summarizes the risk of ELLs being identified as having a high incidence disability by English

proficiency level.

Table 18 Summary of Relative Risk Ratio by English Proficiency Level

	BEGINNING	LOW INTERMEDIATE	HIGH INTERMEDIATE	ADVANCED
INTELLECTUAL DISABILITIES	**	**		
LANGUAGE IMPAIRED		*	**	
EMOTIONALLY HANDICAPPED		**	**	
SPECIFIC LEARNING DISABLED	*	**	*	
OTHER HEALTH IMPAIRED		**	*	

*Relative Risk Ratio is above 1.0. A ratio above a 1.0 indicates an over-representation (Westat, 2003).
**Relative Risk Ratio is above a 2.0.

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CHAPTER FIVE: CONCLUSION

Overview

As diversity in the United States continues to rise, the K-12 student population is also becoming increasingly diverse, both racially and linguistically. The U.S. Department of Education and the National Institute of Child Health and Human Development reported that there is at least one ELL in 43% of the classrooms in the U.S., and it is predicted that this number will continue to grow (Klingner et al., 2006). As a result, teachers are challenged to meet the learning needs of the ELLs in their classrooms. Not only must teachers ensure that ELLs are making adequate yearly progress, they are also responsible for identifying ELLs who also have special learning needs.

Identifying ELLs for special education presents an added challenge for teachers. Teachers who have little experience working with diverse students may have difficulty in distinguishing whether an ELL's low achievement is due to a learning disability or limited English proficiency. This can lead to issues with the referral process and placement of ELLs in special education (U.S. Commission on Civil Rights, 2009). Consequently, there has been a disproportionate representation among culturally and linguistically diverse students in special education programs over the past several decades (Skiba et al., 2008; Coutinho, Oswald, & Best, 2002; Artiles, Kozleski, Trent, Osher, & Ortiz, 2010).

Disproportionality suggests that a minority group is either under-represented or over-represented in special education or a learning disability category when compared to the non-minority group (Donovan and Cross, 2002). An under-representation of ELLs in special

education is a concern because it could mean that the ELLs are not receiving the interventions, accommodations, and other special services to which they are entitled. This also means that these students may not reach their full potential because of the lack of interventions and services provided to them. An over-representation of ELLs in special education is a concern as well because it could indicate inappropriate referrals and placement. It could also mean that the students are being exposed to a watered-down curriculum, they are not being challenged enough, and consequently they might not be achieving to their full potential.

Regardless of whether there is an under-representation or over-representation, disproportionality results in students not receiving the education to which they are entitled. The focus of research on disproportionality since the 1960's has been on the disproportionate representation of ethnically and racially diverse students in special education. Over the past decade, however, the focus of the research has begun to include the disproportionate representation of ELLs in special education. Although researchers have begun to investigate the linguistic variable, the body of research is still slim compared to the literature focusing on the racial and ethnic variable.

Purpose of the Study

The purpose of this study was to investigate the representation of middle school English Language Learners in special education in a large urban school district in Florida. Using data obtained from the district's Department of Accountability, Research, and Assessment, the researcher analyzed the representation of ELLs by ESOL status, by level of English proficiency, and by home language in each of the five high incidence special education learning disability

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categories in order to determine whether there was an under, equal, or over-representation. The findings of this study will contribute to the body of literature that focuses on the representation of ELLs in special education.

<div align="center">*Discussion*</div>

The two research questions investigated during this study were:

1. To what extent are middle school English Language Learners under, equally, or over represented in special education programs at the district level compared to non-English Language Learners?

2. Which special education categories, if any, demonstrate an over-representation of middle school English Language Learners at the district level?

In order two answer these two questions, the researcher analyzed cross-tabulations, risk, and relative risk ratios using the variables of ethnicity/race, ESOL status, level of English language proficiency, home language, and disability category. For purposes of discussion, findings will be presented by each of the independent variables.

Ethnicity/Race

Although ethnicity was not the focus of this investigation, it was still important to include this variable in the study. The purpose of using the variable ethnicity/race when analyzing the frequencies was to gain an overall understanding of the ethnic representation of the ELLs in special education. Because ELLs have diverse backgrounds, it was important to analyze not only the linguistic representation but also the ethnic representation. The frequencies showed that Black students represented 22.64% of the district's total middle school population, while

Hispanic students represented 28.97% and White students represented 40.99%. The frequencies of the district's middle school special education population showed that the population consisted of 30.59% Black, 34.99% Hispanic, and 30.02% White. The frequencies initially can be interpreted as an over-representation of Black and Hispanic students in special education and an underrepresentation of White students.

The cross-tabulations showed that the high incidence disability category "Specific Learning Disabled" had the largest percentage of special education students (70.73%) among all ethnic groups when compared to the other high incidence disability categories. The Specific Learning Disabled category consisted of 38.38% Hispanic, 31.98% White, and 25.34% Black. Black students represented the largest percentage of students in the Intellectual Disabilities category, the Language Impaired category, and the Emotionally Handicapped category, as shown in Table 5.

ESOL Status

The purpose of analyzing ESOL status was to determine whether there was an under, equal, or over-representation of ELLs in special education. The district's frequencies showed that ELLs represented approximately 22% of the middle school population, and non-ELLs represented approximately 78% of the middle school population. However, the cross-tabulations revealed that ELLs represented approximately 32% of the district's middle school special education population, and non-ELLs represented approximately 68% of the middle school special education population. This can initially be interpreted as an over-representation of ELLs in special education.

Similar to Ethnicity/Race, the cross-tabulations revealed that the majority of ELLs and non-ELLs were identified as Specific Learning Disabled. Table 7 shows that there was a greater percentage of non-ELLs in each of the disability categories, but this can be attributed to the fact that there is a larger population of non-ELLs compared to ELLs. However, Table 6 shows that although the majority of the populations of both ELLs and non-ELLs were identified as Specific Learning Disabled, ELLs had a greater percentage of its population identified as Specific Learning Disabled (77.89%) compared to the percentage of non-ELLs identified as Specific Learning Disabled (67.30%).

The researcher also analyzed the risk index and the relative risk ratio for the variable ESOL status. These statistics were used to determine whether there was an under, equal, or over-representation among each of the linguistic groups in each of the five high incidence disability categories. Specifically, the results of the risk index revealed the percentage of students from a specific linguistic group that were receiving special education services for a particular disability, and the relative risk ratio revealed each specific linguistic group's risk of receiving special education services for a particular disability when compared to the risk for all other students. Disproportionality is determined when the ratio is above or below a 1.0. A ratio above a 1.0 indicated an over-representation while a ratio below a 1.0 indicated an under representation. A ratio of 1.0 indicated proportionality (Westat, 2003). The risk index for ESOL Status showed that ELLs are at the greatest risk for being identified as Specific Learning Disabled. In fact, there is a higher percentage of ELLs (10.44%) being identified as Specific Learning Disabled compared to non ELLs (9.24%). Similarly, the relative risk ratio showed that

ELLs were slightly over-represented in the category Specific Learning Disabled; ELLs were 1.13 times more likely to be identified as Specific Learning Disabled compared to non-ELLs.

It is important to note that ELLs were more likely to be identified in the one category that is the most problematic because of the issues related to identification and classification: SLD. Reschly and Hosp (2004, p. 197) remind us that "while the federal regulations regarding the SLD definition and classification criteria *influence* state definitions and criteria, states exercise significant discretion in special education disability nomenclature, definitions, and classification criteria." The variations in definitions and classification criteria impact which students qualify for special education services and specifically which students will be classified as SLD. Less restrictive criteria could result in a higher number of students being identified as SLD when they do not necessarily qualify for services, thus contributing to the over-representation of ELLs in the SLD category in the present study.

After analyzing ESOL status, the variables of English Proficiency Level and Home Language were analyzed. Analysis of these variables is important because the ESOL Status variable alone does not show the representation of specific ELL populations in special education.

English Proficiency Level

Statistical analyses were conducted using the variable English Proficiency Level in order to determine the extent to which the ELLs' language abilities had a role in identification for special education. Similar to the other variables, the cross-tabulations revealed that ELLs at all English proficiency levels had the highest percentage of students identified as Specific Learning Disabled, as shown in Table 9. When analyzing each of the high incidence disability categories,

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the results in Table 8 revealed that Low Intermediate, High Intermediate, and Advanced ELLs accounted for the largest percentage of the ELLs identified as having a high incidence disability.

The risk index, as shown in Table 14, showed that ELLs at all levels of English proficiency were at the greatest risk for being identified as Specific Learning Disabled. ELLs in the intermediate stages of English proficiency were at a greatest risk for being identified as having a high incidence disability. Low Intermediate ELLs showed an over-representation in all five high incidence disability categories, and High Intermediate ELLs showed an over-representation in four the five high incidence disability categories. Beginning level ELLs were over-represented in just two of the high incidence disability categories, and Advanced ELLs showed no signs of over-representation. ELLs with an Advanced proficiency level had a relative risk ratio less than 1.0 in all high incidence disability categories, indicating that they were not at-risk for being identified for any of these categories.

Home Language

The final variable analyzed was the students' home language. The purpose of analyzing home language was to determine the representation of specific language groups in each of the five high incidence disability categories. Additionally, this variable was important to analyze because a student's home language is not indicative of their ESOL status. A student may have a home language of English and be identified as an ELL; likewise, a student may have a home language of Spanish and not be identified as an ELL. The cross-tabulations revealed that, similar to all other variables, the Specific Learning Disabled category had the largest percentage of students in all home languages. This can be attributed to the fact that the Specific Learning

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Disability category had the largest percentage of students when compared to other learning disability categories. Table 10 showed that all learning disability categories had the highest percentage of students with a home language of English which can be attributed to the fact that English speakers accounted for roughly 73% of the district's middle school special education population. Therefore, the risk index and the relative risk ratio were also analyzed in order to determine the risk of being identified for special education based on home language.

Similar to previous risk indices, the risk index for Home Language revealed that students from all Home Language Categories were at the greatest risk for being identified in the Specific Learning Disabled category. The relative risk ratios showed that students with the home language of Spanish were slightly over-represented in the Specific Learning Disabled category compared to all other Home Language groups. The relative risk ratios also revealed that students with the home language of Haitian-Creole were over-represented in the Language Impaired category.

Conclusion

Various conclusions can be drawn from the results of the statistical analyses in this study. The risk indices and relative risk ratios revealed patterns of disproportionality among certain populations of ELLs in special education, and thus enabled the researcher to answer the research questions guiding this study:

1. To what extent are middle school English Language Learners under, equally, or over represented in special education programs at the district level compared to non-English Language Learners?

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2. Which special education categories, if any, demonstrate an over-representation of middle school English Language Learners at the district level?

Overall, ELLs were under or equally represented in all high incidence disability categories except for Specific Learning Disabled. ELLs showed a slight over-representation in the Specific Learning Disabled category. Most students who are identified as requiring special education services are classified as Specific Learning Disabled. In fact, approximately 71% of special education students in the district for the present study were identified as Specific Learning Disabled. Because a large percentage of the special education students are Specific Learning Disabled and because ELLs are over-represented in this category, it is important to recognize that this is occurring, and it is also important to understand why this is occurring.

Another pattern of over-representation the relative risk ratio analyses revealed was related to the English proficiency level. Advanced level ELLs showed no patterns of over-representation in the five high incidence disability categories, and Beginning level ELLs were over-represented in just two of the five high incidence disability categories. However, the Low Intermediate ELLs and High Intermediate ELLs were over-represented in almost all high incidence disability categories. This pattern of disproportionality can be expected given the fact that ELLs at an intermediate level of proficiency in the language acquisition process tend to demonstrate higher levels of developmental language errors when compared to ELLs at the beginning and advanced levels of proficiency. "The number of developmental errors should be small initially but then should increase before finally decreasing," (O'Grady, Dobrovolsky, and Arnoff, 1997, p. 478). This pattern of language development is referred to as the Ontogeny

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Model, and consistent with this model, students learning a second language will initially demonstrate low levels of developmental errors, but the errors will increase with time. Eventually, as the student becomes develops an advanced level of proficiency, the developmental errors begin to decrease. This pattern of errors in the acquisition of a second language can help explain why ELLs at the Intermediate levels of English proficiency showed the greatest patterns of over-representation; not only could their level of English proficiency be affecting their academic performance, but teachers might also have the most difficulty discriminating whether the ELL's academic struggles are cognitive or linguistic.

Other possible conclusions that can be drawn based on this pattern of representation is that students with a greater level of English language proficiency are not as frequently referred to special education; or they are referred to special education but do not qualify for special education services; or they are exited from the special education program from which they were enrolled.

It is also possible that teacher bias and insufficient cultural and linguistic professional development opportunities for teachers are contributing to the disproportionate representation of ELLs in special education. Many of the learning characteristics of ELLs and special education students are similar, challenging teachers to discriminate between linguistic factors and learning disabilities. Teachers who are not prepared to deal with diversity may err on the side of caution and recommend ELLs for special education services when the ELLs' low levels of achievement are due to linguistic factors rather than cognitive ability.

Another hypothesis is that there is a lack of resources available to help ELLs in the academic environment. Teachers of ELLs in a mainstream classroom need to ensure that they are providing proper and sufficient accommodations to improve academic achievement. Failure to do so could result in ELLs performing poorly and being recommended for special education services when the problem is purely a linguistic one. Furthermore, teachers of ELLs in a special education environment need to provide the right interventions and frequently monitor their students' progress. Without the sufficient interventions, the ELLs will remain in special education programs and will consequently contribute to the over-representation.

A final hypothesis is that the models that have been used in schools to help special education students are not as effective as anticipated. As mentioned earlier, the discrepancy model was found to be problematic because state definitions and classification criteria varied, and teachers were waiting for students to fail before referring them to special education services. In fact, the discrepancy model received much criticism for not identifying special education students until it was too late and for not providing any interventions to help students with learning disabilities (Aaron, 1991; Fletcher et al., 1998). However, IDEA's authorization for the implementation of RtI in 2004 eliminated the need for a student to demonstrate a severe discrepancy between intellectual ability and achievement in order to qualify for special education services. School districts nation-wide, including the district for the present study, are implementing RtI with the goal of providing early-intervening services to students rather than waiting for the student to fail before referring them to special education. Likewise, the goal is to also reduce the number of students referred for special education services. If the district in the

present study is successfully implementing RtI, this could explain why ELLs are not at-risk for being identified in four of the five high incidence disability categories. However, it does not help in explaining why ELLs are showing a slight over-representation in SLD. RtI should be helping ELLs be more equally represented in all special education disability categories, especially SLD.

Limitations

To begin, the sample chosen for this study was not random. This study was limited to special education students in middle school grades 6-8 in the specified school district where this study took place. The district chosen for analysis in this study was not random either. The district involved in this study was chosen because of its large ELL population as well as its proximity to the researcher.

Another limitation of this study is the generalizability of the results. Because school districts in the state of Florida and in the United States have varying representations of English Language Learners, the results of this study may not be generalizable to all school districts. The results of this study are best generalizable to districts with similar demographics.

A third limitation of this study was that the researcher was limited by the data obtained from the school district's Accountability, Research, and Assessment office. Although the researcher requested CELLA test scores for all ELL students, the district did not have access to all score reports. As a result, the statistical analyses for the variable of English Proficiency Level could only be conducted based on the data that the district provided.

Finally, the largest limitation of this study was that the quantitative analyses only showed the extent to which ELLs were under, equally, or over-represented in the five high incidence disability categories. The statistical analyses did not show why the phenomenon of disproportionality of ELLs in special education programs is occurring nor did the analyses explain how to solve this problem. Rather, the data analyses only revealed that the phenomena of over-representation is occurring, and school personnel at all levels can benefit from these findings to improve the process of identifying, referring, and placing students in special education programs.

Implications and Recommendations for Future Research

This study is important because of the slim body of literature on the disproportionate representation of ELLs in special education. The results of this study contribute to the growing body of literature that ELLs are over-represented in the special education high incidence disability category of Specific Learning Disabilities. The results also contribute to the literature suggesting that ELLs with lower levels of English proficiency are more at-risk for being identified for special education services when compared to ELLs with advanced proficiency levels.

The results of this study have implications for practitioners at all levels in the field of education, including teachers, district personnel, and policy makers. As our nation becomes increasingly diverse, the populations of our nation's public schools are becoming increasingly diverse, as well. Therefore, it is crucial that teachers are prepared to deal with diversity and that teachers are prepared to meet their students' needs. In order to help teachers be more prepared

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and feel more comfortable teaching diverse students, pre-service teachers should take courses at their institutions of higher learning that focus on being a culturally competent teacher while in-service teachers should have more access to professional development opportunities focusing on helping teachers meet the needs of their diverse students. Preparing educators to teach diverse student populations is important in districts that serve large populations of ELLS, such as the district in the present study, in order to ensure that teachers are meeting all of their students' learning needs. Offering courses and professional development opportunities on diversity in the classroom is equally important in districts with smaller ELL populations because teachers typically have had less exposure to students with diverse backgrounds and do not have as much experience in determining whether an ELL's low achievement is due to linguistic factors or whether the student has a learning disability. Teachers who take language acquisition classes and attend professional development opportunities focused on learning cultural competency strategies are more prepared to teach in a way that is culturally responsive (Brown, 2007). Language acquisition classes help teachers better understand how languages are learned, so they are therefore better able to understand their ELLs' learning needs, are able to recognize cultural differences, and are better able to distinguish when an ELL's low achievement level is due linguistic factors versus a special learning need. Once teachers become more knowledgeable on knowing how to meet the needs of their diverse students, the students will benefit from receiving the education they are entitled to, and inappropriate referrals of ELLs to special education will be reduced.

In order to ensure that teachers are prepared to teach the diverse students in our nation's classrooms, school districts should require teachers to take courses focused on being culturally responsive educators. All teachers need know how to use culturally responsive teaching strategies, including general education teachers. School districts should also ensure that the curricula for all grade levels and all subject areas are culturally responsive. Culturally responsive teachers and a culturally responsive curriculum are important in helping diverse learners meet their maximum potential. Teachers should closely monitor instructional strategies and the curriculum to ensure that they are teaching in a way that is culturally responsive, and all teachers should closely monitor their students' progress to determine whether the instructional strategies and curriculum are meeting their students' needs.

School districts should also be monitoring student progress at the district level and should be disaggregating the data by race and ethnicity, as mandated by the 2004 provisions in IDEA, but they should also be disaggregating the data by home language. Disaggregating the data by language is as equally important as race because identifying and placing ELLs in special education programs is even more difficult than ethnically and racially diverse learners because not only does the student's cultural and socioeconomic background play a role in their education, but linguistic and immigration variables can also influence their academic performance (Klingner et al., 2006). The statistics used in the present study to analyze the representation of ELLs in special education were the risk index and the relative risk ratio. Using the relative risk ratio is a common statistic used to determine the representation of minority groups in special education. Districts should use these statistics to analyze data because they show within group

comparisons as well as comparisons to other minority groups. When districts observe an over-representation, they can implement policies and procedures aimed at increasing the achievement levels of the over-represented group.

Because this study shows that ELLs are slightly over-represented in special education in the SLD category, it is imperative that policy makers examine testing and placement patterns of ELLs in special education programs. This is important to help ensure that the best practices are being put in place for English Language Learners. ELLs are often inappropriately identified as needing special education services due to poor performance on tests because of language ability (Obiakor & Utley, 2004, Reschly, 1981, Spinelli, 2008, Ortiz, 1997, Shephard, Smith, & Vojir, 1983), so understanding the representation of ELLs in special education programs can help policy makers make better informed decisions to ensure equal access to education for all students. Policy makers should review state policies that may interfere with the proper referral of ELLs to special education programs, and they can use this knowledge to ensure non-bias assessments, referrals, and placement of ELLs in special education programs are being implemented school-wide.

Additional research focusing on the representation of ELLs in special education should be conducted in more school districts. The findings of the future research can help identify patterns of over-representation, and this will help researchers better understand why it is occurring. Once we understand why ELLs are over-represented in special education, solutions can be provided to both districts and teachers, and ELLs will receive the needed interventions to reach their maximum potential.

Future research could also include comparative studies of multiple school districts that focus on different characteristics. For example, future research could study districts that have a high ELL population versus a low ELL population; districts implementing a culturally responsive curriculum versus districts with curriculum that is not culturally responsive; and districts whose teachers have taken courses on being culturally responsive versus districts with inadequate trainings and teachers who do not teach in a way that is culturally responsive. What are their rates of representation among ELLs in special education? Do districts not implementing a culturally responsive curriculum and teachers who are not prepared to teach in a way that is culturally responsive have an over-representation of ELLs in special education?

Since this study only focused on middle school students, future research could also investigate the representation of ELLs at elementary school level and the high school level. Repeating his study at all levels can help researchers better recognize patterns of representation of different age groups of ELLs in special education. These patterns can help districts in implementing the most appropriate policies to help improve the academic achievement levels of ELLs.

Lastly, further research could focus on the impact of RtI in various schools and various school districts. Have administrators and teachers noticed the impact of RtI on student achievement? Have teachers noticed their students, specifically ELLs, improving academically when given interventions? To what extent do teachers feel that their early intervening services are helping students and are minimizing the number of students being referred to special education? A future study could examine the district's data over a period of time to determine

whether the over-representation of ELLs in special education is increasing or decreasing. Furthermore, future quantitative studies could analyze school data from schools that are at varying stages in the implementation process of RtI to determine the extent to which the interventions have helped ELLs; and future qualitative studies could interview teachers to determine how they feel about the extent to which the interventions have helped their students.

Final Reflections

This study is important because it contributes to the growing body of literature supporting the disproportionate representation of ELLs in special education. However, there is still limited research answering the question of why the over-representation exists. Culturally responsive teachers, culturally responsive curricula, non-biased assessments, careful review of policies and procedures, and close monitoring of data are possible contributing factors, but future research is needed to validate the exact reasons. Once we understand why it is happening, efforts can be made to prevent it from happening.

For now, it is important that districts realize that the over-representation of ELLs in special education is still occurring. Many ELLs are inappropriately referred for special education services, and in other cases teachers are not referring ELLs for special education because they think the problem is linguistic and not a learning disability. In both cases, the ELLs are not receiving the education to which they are entitled. Consequently, this inhibits them from achieving their maximum potential.

All practitioners in field of education should see this as a call to action. All students, regardless of race, ethnicity, and home language are entitled to an equal access to education.

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Understanding the representation of ELLs in special education is a multi-faceted problem, and practitioners at all levels in the field of education need to analyze data to understand the patterns of when it is occurring and why it is occurring. Only then can we provide the needed support to ELLs and the equal access to education that they rightly deserve.

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