ABSTRACT

Title of Dissertation: DOUBLE JEOPARDY: AN ANALYSIS OF THE READING DATA OF EIGHT GRADE ENGLISH LANGUAGE LEARNERS IN SPECIAL EDUCATION

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This research investigates whether an achievement gap exists among eighth grade students who are identified for English Language Learners (ELL), in a Special Education (SE) program, or students who are identified as both (ELL-SE). Using the Analysis of Variance procedure, the study analyzes the differences in performance of ELL, SE, and ELL-SE subgroups by race and socioeconomic status. *Critical race theory* and *Sociolinguistic theory* are the lenses that frame the research, and a statewide assessment and a Scholastic Reading Inventory (SRI) serve as the assessment tools. While other studies highlight either students enrolled in Special Education (SE) students, or English Language Learner (ELL) students, this study examines the reading data of students who are identified by both subgroups (ELL-SE). Findings will likely inform education policy, and the pedagogy and practice of current and pre-service teachers who are preparing to meet the instructional needs of this growing population. In addition, an alternative for researching achievement gap data is recommended.

Key Terms: achievement gap, ELL-LD, EL-LD, SPED-LEP, ELL-SD, ELL-SE, FARMS, SRI

DOUBLE JEOPARDY: AN ANALYSIS OF THE READING DATA OF EIGHTH GRADE ENGLISH LANGUAGE LEARNERS IN SPECIAL EDUCATION

by

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Dedication

This paper is written in memory of my grandmother Charlotte – an educator who earned a Master's degree when women and people of color endured unmentionable situations in higher education. Thank you for preparing my mother to be a role model, community leader, professor, philanthropist, promoter of Fine Arts, and my teacher from kindergarten through fifth grade.

This paper is written in memory of my grandmother Helen. Thank you for making my father into a man and for raising both him and Alpha. I revisit Aunt Alpha's life through the many books that I inherited from her, they tell the story of your heart. I am indebted to you for sending my dad to college to become a teacher, so that he could meet my mother, and they could have me.

Also, I would like to dedicate this work to my late, great-grandmother Hattie. I am forever grateful for your strength and for you showing me the importance of endurance and effort at a young age. In addition, I wrote this in fond memory of my great aunt, Charity-the librarian. A round of applause to you for forcing each of us to pronounce our words properly. To the late, great Cousin Sara who inspired me to write books, and in her own book *He Included Me*, explained that she would have earned a doctorate degree if it was feasible at that time - it was one of her dreams, I dedicate this to you as well. Finally, I am also grateful to great-grandfather John, who was known to his colleagues as "Professor Webb". Thank you for planting the seed and paving the way in the late 1800s.

I know that my ancestors are proud; their prior scholarship made this possible, and that is what keeps me motivated. To every researcher, educator, scientist, and misdiagnosed student around the globe - this work is for you.

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To my parents, Frank and Angela Terrell: you are the greatest pair that a daughter could ever ask for. Thank you for being teachers, planters, and professors; and for teaching me to read and write at such an early age.

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Key Terms

Academic language: this term refers to content language and verbal skills that are required to perform and excel in school settings.

American Indian: this term references a racial group also referred to as Native American or Alaskan Native. This definition is derived from the 2010 U.S. Census Report.

Asian: this term references a racial group identified as descendants of Asia, including Asian Indian, Chinese, Japanese, and Korean are some of the specific descriptions found in this group. This definition is derived from the 2010 U.S. Census Report.

Black: this term refers to residents of the U.S. who have origins in the black populations of Africa, including descendants of enslaved Africans and 1st and 2nd generation Africans in America. The term "Black" is used in this study since the literature references "Black-White Achievement Gap" and it may be more accepted than the term "African-American" when analyzing ELLs and non-ELLs. Students may have opted not to adopt the hyphenated term "African-American", as studies show that first generation students may not have assimilated to American culture and do not use that term as an identifier (Igoa, 1996). This definition is derived from the 2010 U.S. Census Report.

Critical law theory: this term references a framework composed by minority legal scholars to investigate issues of race and led to Critical Race Theory.

Early reading knowledge: this term references phonological awareness (knowledge of sound structure and spoken words) and conventional print knowledge. This definition is from Wang (2008).

ED: this term is used to describe English Dominant students, particularly in a bilingual education program (DeJesus, 2008).

English Language Learners: U.S. Census (2010) defines this group as speaking English with difficulty, also referred to as EL-English Learner or LEP-Limited English Proficient.

ELL-LD: this group refers to a population of students who are both English Language Learners and diagnosed with a specific learning disability. Other terms are ELL-SD, LEP-SD, LEP-SE, ELL-SD, ELL-SWD, LEP, and SWD in the literature.

FARMS: Free and reduced meals are provided to families at or beneath the poverty level. This term is used to describe children living in poverty in some studies.

Generational literacy: this term refers to having a command of reading, writing, and speaking that is passed to family members for multiple years (i.e. grandparent, to parent, to child). It is used to describe proficiency in households of multi-generational families and to describe language knowledge that flourished in families/households that were permitted and encouraged to read.

Hawaiian/Pacific Islander: this term references a racial group in the Pacific islands/Hawaii, (e.g. Guam, Samoa, and Fiji). This definition is derived from the 2010 U.S. Census Report.

Home Language Survey: Some states require this document on which families are asked to provide the language spoken at home, and birth country. It used to determine whether a student will take an English Language Test for ESL placement.

IDEA: The Individuals with Disabilities in Education Act/Individuals with Disabilities in Education Improvement Act was signed into law in 1997 amending the All Handicapped Children Act of 1975. Later, IDEIA act was signed into law in 2004 and in 2006, The United States Department of Education released IDEIA regulations. Consistent with the literature, references to IDEA will read (IDEA, 1997), and references to IDEIA will read (IDEA, 2004).

Language knowledge: this term references both receptive vocabulary (ability to explain what is comprehended), and expressive language (fluency). This definition is from Wang (2008).

Literacy knowledge: this term references both language knowledge and early reading knowledge. This definition is from Wang (2008).

Latino/Hispanic: this term references an ethnic group that includes a heterogeneous population of predominantly Spanish speakers, some identify as descendants of Spain, as Chicano, or by birth country (e.g. Puerto Rican, Mexican, and Dominican). This definition is derived from the 2010 U.S. Census Report.

Literacies: this term refers to the reading, writing and speaking ability of a student.

Multiracial: this term references individuals who identify as more than one race. This definition is derived from the 2010 U.S. Census Report.

Nonalphabetic: this term references languages that do not follow a Western alphabetic system, it usually refers to languages that use characters instead of letters, (e.g. Mandarin).

Phonological skills: this term references the awareness of sound and sound structures.

Poverty: this term refers to families living beneath the financial threshold determined by The U.S. Department of Health Services.

Safe Harbor- According to No Child Left Behind (2001), school s can make Adequate Yearly Progress even if one or more subgroups do not meet their reading or math Annual Measurable Objective. It includes improving in the basic category, and reducing the number of students performing at that level by 10 percent.

School-aged: NCES (2004) describes school-aged children as 5 to 17 years. Programs that extend beyond this age group will be noted as such and the grade level documented.

Standard American English: this term refers to the type of English that is spoken by mainstream, racial majority, U.S. citizens.

Standard English: this term describes the pattern of English used in academic spaces and is associated with middle and upper class discourse, in contrast to Standard American English, it includes British English.

Urban: in this study, the term will only refer to a city or school district that is large, non-rural, and non-suburban. Large-scale studies such as TUDA use both "large city" and "urban", with only a definition for large city. TUDA does not define "urban". The researcher does not use this term in her work.

White: this term refers to residents of the U.S. who have origins in Europe, the Middle East, or North Africa. It is used primarily as achievement gap research is synonymous with the Black-White achievement gap. This definition is derived from the U.S. Census.

World English variety: this term refers to countries that speak various dialects of English; including Liberia, Sierra Leone, Great Britain, and Jamaica.

Chapter 1

Introduction

Problem. There are now more than 400 languages spoken in the U.S. (Spinelli, 2008), and the 2009 National Association of Education Progress (NAEP) Digest of Education Statistics reports that children who are English Language Learners (ELLs) perform lower than children who are not. For instance, the average scale score on the NAEP Reading assessment for ELLs was 221, and the average scale score for non-ELLs was 268. According to the National Center for Education Statistics (2004), if school-aged children reported speaking English with difficulty in the 2000 U.S. Census, their likelihood of graduating from high school was 18 percent, whereas if they reported speaking English well, their likelihood of graduating rose to 51 percent. Haager (2007) found that over 50 percent of English Language Learners score in the bottom third in both reading and mathematics in comparison to their more linguistically proficient peers. Other researchers also provide explanations for low ELL performance, including challenges with the language of the test (Abedi, 2006; Artiles & Klingner, 2006; Solano-Flores, 2006; Roseberry-McKibbin & O'Hanlon, 2005), and invalid or inappropriate assessments (Liu, Ortiz, Wilkinson, Robertson, & Kushner, 2008; McCardle, Mele-McCarthy, & Leos, 2005). ELLs continue to perform lower than their English speaking peers (Echevarria, Vogt, & Short, 2009; Haager, 2007).

ELLs are one of the subgroups identified as "disadvantaged" by *The No Child Left Behind Act of 2001* (NCLB, 2001). The other three groups of children identified are: racial minority, economically disadvantaged, and disabled. In some cases these

populations overlap and meet the criteria to belong to multiple subgroups, the ELL-SE group is an example. Although it is not uncommon for students to belong to more than one of the disadvantaged groups, ELLs in Special Education are not highlighted in national data sets (e.g. NCES 2008 long term trend assessments), making it difficult to support this growing population (http://nationsreportcard.gov/reading_2009/nat_g8.asp?subtab_id=Tab_1&tab_id=tab3#tabsContainer). In addition, national data does not show standardized test results of ELLs who belong to one of the other "disadvantaged" categories. What is revealed in national data are that test scores from language minority, race minority, economically disadvantaged, and disabled children that are consistently lower than the test scores of their more advantaged peers (NAEP, 2009). These differences in performance are commonly described as the "achievement gap."

Purpose. An achievement gap is defined as the "systematic variances in the ability to learn between students from majority populations and students from minority populations" (Howell & McFeeters, 2008, p. 237), and it continues to be a central topic in education research. For instance, the Educational Testing Service (ETS) released a report written by Barton & Coley (2010) entitled *The Black-White Achievement Gap: When Progress Stopped*. Included in the report were differences in achievement between Black children and White children that were based on NAEP's 2008 reading scale scores. The mean score for 13-year-old Black children was 247, while the mean score for White children was 268 (See Figure 1).

Over time, the achievement gap began to narrow between Black children and White children in both reading and mathematics (NAEP, 2008). In 1971, there was a 39-

point gap for 13 year olds in reading, and a 45-point gap for 13 year olds in mathematics. In 1988, the gap in reading was reduced to 18 points, and for mathematics it was reduced to 25 points. In the 1990s, the reading gap began to increase and in mathematics, the gap was stagnant. By 2004, the gap began to narrow again and continued to decrease through 2008 for Black and White 13 year olds. (See Figure 1 and Figure 2).

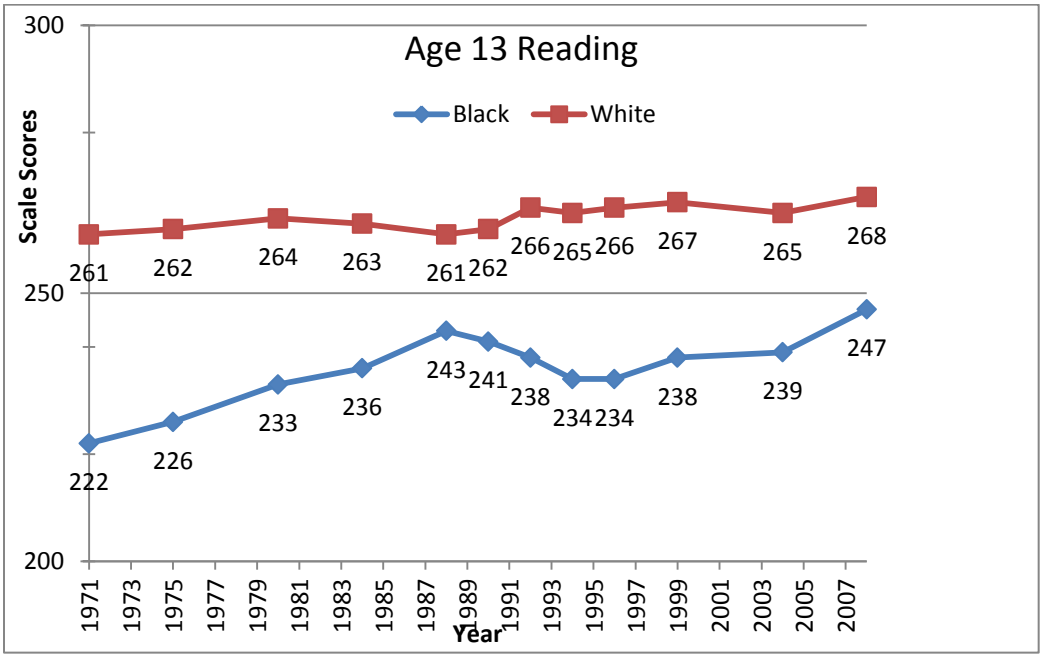


Figure 1-Trend in NAEP White-Black Average Reading Scores

Source: NCES trend data (The Nation's Report Card, NAEP, 2008)

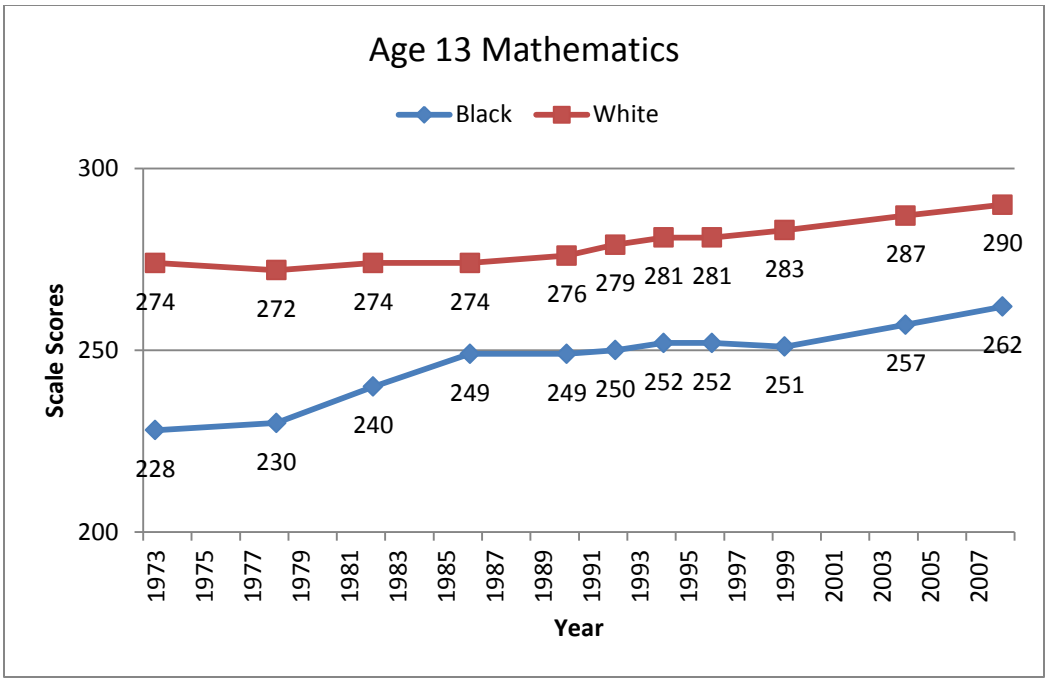


Figure 2-Trend in NAEP White-Black Average Mathematics Scores

Source: NCES trend data (The Nation's Report Card, NAEP, 2008)

Similar to the research above by Barton and Coley (2010), achievement gap literature traditionally references the differences in performance between Black children and White children, and the outcomes of the research sometimes feeds the narrative that White children are smarter than Black children, because their test scores are higher (Perry, 2003).

The "achievement gap" is becoming synonymous with the "Black-White achievement gap" (Barton & Coley, 2010; Johnson, 2002), and Figures 1 and 2 show that gap is narrowing. However, achievement gap research that includes Latino, Asian, American Indian and Hawaiian/Pacific Islander students is not as prevalent in the literature (Pang, Han, & Pang, 2011; Wang, 2008). Therefore, one of the goals of this study is to add to the research, and investigate whether there is an achievement gap

between several racial groups, as the K-12 population becomes increasingly diverse. If it is determined that a gap exists among other race/ethnic groups, then those gaps can be researched and reduced similar to the Black-White achievement gap.

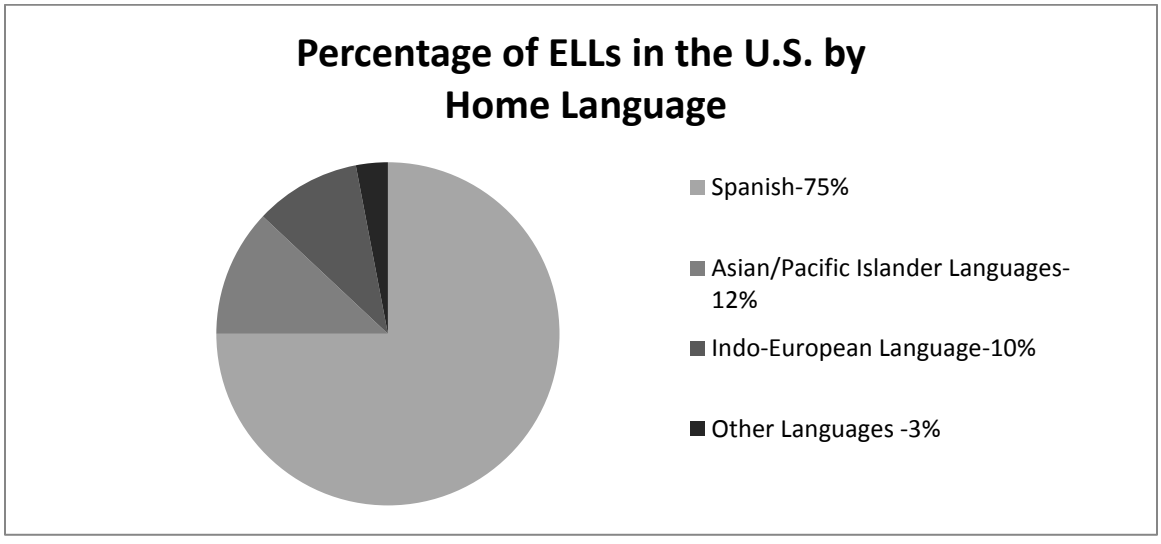
In addition to differences in performance between race/ethnic groups, there are gaps that exist among other subgroups described in NCLB (2001); one of which is "economically disadvantaged." In 2010, 1.3 million students were eligible for free and reduced meals (U.S. Department of Agriculture, 2011) and the average scale score among FARMS-eligible students on the NAEP reading test was 250 in 2009. This is in comparison to an average scale score of 275 for those students who were not eligible for FARMS (http://nationsreportcard.gov/reading_2009/nat_g8.asp?tab_id=tab3&subtab_id=Tab_5#tabsContainer), a 25 point difference in mean scores. These differences in performance also occur on statewide assessments (http://bit.ly/JzXB71). In Maryland, out of the 38, 814 eighth grade children who were not eligible for FARMS, 88.2 percent (34,222) scored above the basic level on the 2010 Maryland School Assessment. Conversely, out of the 23,057 eighth grade children who were eligible for free and reduced meals, only 67.3 percent (15,508) scored above the basic level. It is possible that the FARMS subgroup includes ELLs or children of color, however, the combined subgroups, such as ELLs who are FARMS are not revealed in the data for that state. Likewise, the academic performance of other subgroups that overlap with the FARMS group is not reported in national data (e.g. NAEP, 2009); making it difficult to further investigate the socioeconomic achievement gap, which may include English Language Learners.

It is estimated that by 2025, one out of every four students in U.S. classrooms will

be English Language Learners (Spinelli, 2008). In some states ELLs represent more than a quarter of the K-12 population (i.e. California and Texas), and in other states ELLs represent more than a fifth of the K-12 population (i.e. Arizona, Florida, Nevada, New Jersey, New Mexico, New York, Rhode Island) (Artiles & Klingner, 2006). Recent data from NCES (2009) showed, that since 1979, the number of children ages 5 to 17 who were enrolled in U.S. schools and speak a language other than English at home, increased by 7 million (from 3.8 million to 10.9 million); that is, from 9 percent to 21 percent of children in that age range. Out of the 53 million children enrolled in schools in 2009, 5 percent spoke English with difficulty, totaling 2.7 million children (see Table 1). Of this total (2.7 million), 2 million or 75 percent spoke Spanish; 320,000 or 12 percent spoke Asian/Pacific Islander languages; 287,000 or 10 percent spoke other Indo-European languages; and 72,000 or 3 percent spoke another language (http://nces.ed.gov/programs/coe/2010/section1/indicator05.asp).

Table 1-ELL and non-ELL children in the U.S. 2009

Source-Prepared from NCES data, Language Minority School-Age Children (2010)



Although the ELL population is projected to increase, the majority of classroom instruction and assessment of ELLs in the U.S. takes place in English, rather than in an ELL's native language (Spinelli, 2008; Haager, 2007). Researchers maintain that educators may be discouraged from teaching ELL students in their primary language due to "English-Only" mandates (Fradd & Correa, 1989). Beginning in the early 1980's, "English-Only" policies spread throughout the U.S. impacting state mandates for a decrease in bilingual and immersion programs (de Jong, 2008). The controversy over English-only continues and Title 3 of NCLB (2001) requires ELL instruction; meanwhile, only twenty-seven percent of teachers report that they feel prepared to teach ELLs (Spinelli, 2008).

Teaching ELLs is challenging for some educators as best practices for ELL instruction and assessment still remains unclear (August, Carlo, Dressler, & Snow, 2005), and meeting their instructional needs becomes even more complex when ELLs are diagnosed with a reading disability. Case and Taylor (2005) found that eighty percent of special education referrals are related to teachers' concerns of students' reading problems. Therefore, if a child exhibits difficulty in reading, he may receive a referral for Special Education services (Klingner & Harry, 2006). Current tests that are available may be biased and inappropriate for ELLs, as they are designed for English speakers (Abedi, 2006; Solano-Flores, 2006). Artiles and Klingner (2006) found, "the majority of ELLs who struggle in schools, demonstrate difficulty in reading" (p.2188).

A study that captures the reading data of ELLs, in particular ELLs who have a documented learning disability (LD) is essential so that the research community and practitioners are aware of how ELLs with LD perform on standardized reading tests.

Learning-disabled is the Special Education (SE) category that contains the largest number of Latino children, the largest number of Black children (NCES, 2009), and the largest number of ELLs (Donovan & Cross, 2002 in Wilkinson et al., 2006). Each of these groups (i.e. Latino, Black, and ELL) is a minority group that statistically is the majority in the learning disability category. Thus, there may be inaccuracies with ELL-LD identification (Spinelli, 2008; Haager, 2007; Harry & Anderson, 2004; Coutinho, Oswald, & Best, 2001).

Response to Research. In October of 2003, The National Symposium on Learning Disabilities in English Language Learners took place in Washington, D.C. to discuss gaps in ELL-LD research and to inform the national agenda. The panel evaluated the current state of knowledge regarding the assessment and identification of ELL-LD children (McCardle, Mele-McCarthy, & Leos, 2005). Likewise, in November of 2004, The National Center for Culturally Responsive Educational Systems (NCCRESt) commissioned manuscripts for a national conference on ELLs with special needs in Scottsdale, Arizona (Artiles & Klingner, 2006). From these conferences emerged research written by symposium participants, much of which is reviewed in the next chapter. Also from the conference, emerged topics for future research, including the need for data regarding the assessment of ELLs with LD (McCardle, Mele-McCarthy, & Leos, 2005). Considering the ELL-LD population is under-researched and growing (Ruffin, 2009; Case & Taylor, 2005; McCardle, Mele-McCarthy, & Leos, 2005), the scholarly community is attempting to build a substantial database for this population.

Significance. Currently, the research on the ELL-LD and ELL-SE population is largely slanted toward early childhood and elementary age children (Haager, 2007; Liu,

Ortiz, Robertson, & Kushner, 2006; August, Carlo, Dressler, & Snow, 2005; Case, & Taylor, 2005). Secondary practitioners need a body of knowledge that examines how ELL-LD and ELL-SE populations perform, and this study investigates middle school children. Reading/Language Arts is documented as the more difficult high stakes assessment for ELLs (i.e. compared to mathematics assessments) (Abedi, 2006). Developing practitioner knowledge about ELL-LD and ELL-SE students and their performance on high-stakes assessments can be used as a resource to adequately prepare students for assessments and to set realistic goals for the secondary ELL-LD and ELL-SE population.

In addition to adding to the literature for the secondary grades, the need for assessment scores in a NAEP reported grade was also considered. Eighth grade students take the NAEP assessment (NAEP, 2009; Manzo, 2003); this includes ELL-LD and ELL-SE children. For example, according to NCES, children who received reading and math instruction primarily in English for 3 years and students with disabilities are required to take the NAEP exam (http:/nces.ed.gov/nationsreportcard/about/inclusion.asp). States follow similar guidelines for standardized assessments (Maryland Accommodations Manual, 2008, p. 1-1). These state and federal assessments are relevant to this study because they provide statistics from which many conclusions are drawn, including the existence of an achievement gap.

Achievement gap studies have led to funding for minority populations (Barton & Coley, 2010). For instance, Title 1 of the 1965 Elementary and Secondary Education Act, and Head Start are noted as contributing factors to narrowing the Black-White Achievement gap between 1970 and 1990 (Barton & Coley, 2010). Other funding is

available when states close the achievement gap, or make Adequate Yearly Progress (AYP) (NCLB, 2001, Section 5411 (b)(1)(B)(2)). Federal funding is available for states that "close the academic achievement gap for those groups of students farthest away from the proficient level on the academic assessments administered by the State under Section 1111" (NCLB, 2001, Section 5411 (b)(1)(B)(2)). Therefore, every year that a school-district has an achievement gap that does not narrow, is another year without funding that could benefit students and school communities. As a result, school districts are apprehensive about testing the ELL population, out of concern that the population will deflate their scores, and make it difficult to make AYP (Artiles, Sullivan, Waitoller, & Neal, 2010; DeJesus, 2008). States are required by NCLB to reduce gaps at the local level, and AYP is measured for the entire student population as well as for each disadvantaged group (Mosquin & Chromy, 2004). For instance, it is reported on the 2007 NAEP 8th Grade Reading test, that the average score for ELLs was 42 points lower than the average score for non-ELLs (NAEP, 2008; Lee, Grigg & Donahue, 2007). Having similar data reported and available for ELL-LD children or even ELL-SE children may assist with making decisions about academic achievement for these groups.

Urgency. The NCLB Act mandates that the percentage of students in the basic category be reduced to zero after 12 years (i.e. 2014), or by 10 percent every year. Adequate Yearly Progress is met if one of the following is true, a) the percentage of students at the basic level decreases by more than 10 percent of the value of the previous year (The NCLB Act of 2001, Section 111 (b)(1)(i)), or b) the proportion of students at the basic level decrease linearly over time until after 12 years there are no more students in this category (The NCLB Act of 2001, Section 111 (b)(2)(F)). One of the ways to meet

goal (a) is by taking the larger of the highest percentage of basic proficiency students among the four disadvantaged groups, which may include ELL-SE children. In addition, 2014 is the year that states have to meet the requirements for goal (b) to make Adequate Yearly Progress (Mosquin & Chromy, 2004). Therefore, it could benefit schools and school districts to identify the ELLs in Special Education and how they perform in order to help them meet their goals, and make AYP.

Overall, providing ELL-SE and ELL-LD test score data, and statistical analyses could identify deficits, discover patterns, and highlight strengths within the ELL and SE subgroup; helping school districts narrow gaps and receive funding. Additional data, including how ELL-SE children who are FARMS eligible and ELL-SE children who are ethnic minorities can assist educators with identifying realistic goals for this population and add missing pieces to achievement gap literature. There is little to guide educators as they evaluate skills, deficits, and strengths between students who have poor academic performance due to mismatched instruction, inadequate resources or invalid assessments. Decisions are made based on student outcomes, without taking these factors into consideration (Klingner & Harry, 2006). Since there is no consistent definition for children who are labeled LD (Coutinho, Oswald, & Best, 2002; Reid, DuPaul, Power, Anastopoulus, Rogers-Adkisson, Noll, & Riccio, 1997), nor is there a consistent definition for children who are labeled ELL (Artiles & Klingner, 2006; Fradd & Corea, 1989), the question remains whether ELLs are acquiring English or concealing a disability, or if acquiring English is concealing a disability (Wagner et al., 2005). Overall, the appropriate assessments and instruction of children who are ELL-LD remains controversial.

Research Questions. Policies need to be in place to govern how children identified as ELL-LD are assessed. In order for this to happen, researchers and teachers must have a working knowledge of how the ELL-LD child performs on a high-stakes assessment. As previously stated, this data is not made available in state and national reports, and understanding how children identified as ELL-LD perform on standardized assessments allows practitioners to provide academic experiences that improve students' knowledge, and their scores.

Bringing awareness to gaps in ELL-SE and ELL-LD student achievement may help minimize the gaps, however it must be determined whether a gap exists. Historically, achievement gap conclusions are drawn from one population; that is, general education. This population includes more individuals, and therefore more variance than a small population such as ESOL or Special Education. An alternative approach to analyzing the race/ethnicity achievement gap is to analyze data within a population that is smaller, with less variance, or with similar academic outcomes (e.g. ESOL and Special Education for LD identified students require entrance/exit testing). Achievement gap data is also traditionally drawn from one subgroup, (i.e. ELL), rather than a population that intersects subgroups, such as the ELL-SE population. In order to determine whether an achievement gap exists among ELL-LD students who belong to other "disadvantaged" subgroups, and to inform the research community about the performance of the ELL-LD child, this study will investigate the following:

1. Is there a gap in reading achievement among 8th grade ELL, ELL-LD, and SE students?

2. Is there a gap in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as ELL, ELL-LD, or SE?
3. Is there a gap in reading achievement between 8th grade ELL-LD students who are eligible for free and reduced meals and those who are not?

Theoretical Framework

Overview. Achievement gap literature emerged from differences in performance between students of different races (Barton & Coley, 2010; Wang, 2008; Johnson, 2002), and children who speak different languages (McCardle, Mele-McCarthy, & Leos, 2005). Therefore, an analysis of a performance gap among ELL-LD children includes two frameworks to analyze the literature. One draws attention to the role of language in and across communities, the other highlights the role of race in education.

***Sociolinguistics*.** The tenets of sociolinguistics were used to analyze achievement gap literature with respect to language. The framework aims to recognize the connection between language and society, and supports the study of a range of social variables including language, socioeconomic status, and geographic location (Tarone, 2007).

In the 1980s, scholars began to critique sociolinguistics, as it gave little value to language when combined with social interaction. Recent developments of sociolinguistic theory incorporate and support the study of interaction in language environments, and language use in social contexts (Tarone, 2007). Sociolinguistics establishes the theoretical significance of language variation. It is hermeneutic in how new contributions are constantly added to the debate of what sociolinguistic theory is and should be (Coupland, 1998).

Dell Hymes is the sociolinguist who is primarily responsible for language and language interaction as scholarly inquiry. Part of his research is rooted in culturally communicative competence and cognitive communicative competence (Coupland, 1998). The terms “culturally communicative competence” and “cognitive communicative

competence" refer to the ability of speakers to use language in contextually and culturally appropriate ways, in addition to knowing the grammatical structure of a language. Examples of the role of language in the performance expectations of children who speak and write Standard American English, and those who do not will be noted throughout the study.

Critical Race Theory. The tenets of Sociolinguistic Theory will serve as a lens in the examination of language acquisition and language use in educational contexts; likewise Critical Race Theory (CRT) provides a lens for the examination of race in educational contexts. Critical Race Theory is a theoretical framework through which one can examine racial inequity (Ladson-Billings & Tate, 1995). With the exception of a brief description by W.E.B. DuBois in 1912, and Carter G. Woodson in 1916, race as scholarly inquiry had not been accepted as a theory in education research (Ladson-Billings, 2005). In the 1970s, minority lawyers worked to add considerations about the impact of race to legal scholarship; hence, they formed critical law theory. As a result, issues of race began to appear more frequently in educational research after 1980 (Ladson-Billings & Tate, 1995).

Critical Race Theory is very direct in its assertion that racism is inherent in U.S. society (Blaisdell, 2005). As a framework, Critical Race Theory surpasses the conversation of whether racism exists; to why it exists, how it exists, and how it affects education. In educational studies, Critical Race Theorists describe the term, "racism" as perceived ethnic discrimination by a teacher, peer or other individual as a counter to achievement (Reyna, 2008; Blaisdell, 2005; Ladson-Billings, 2005; Ladson-Billings & Tate, 1995)**.** Examples of the role of race in the performance expectations of Black and

Latino children, compared to White and Asian children are noted throughout the study.

Race and racial differences are salient to achievement gap literature, and appear throughout the NCLB Act (2001). The NCLB Act defines achievement gaps as differences in achievement between groups that are disadvantaged and not disadvantaged (Mosquin & Chromy, 2004). As previously described, there are four groups of disadvantaged students specified in NCLB, all of which are relevant to this study, and are reviewed in this order: Economically disadvantaged, Limited English proficiency, Disabled, and Racial minority.

Chapter 2

Contributions of Prior Scholarship

Economically disadvantaged

Overview. In this section of this chapter, the role of socioeconomic status on educational achievement will be highlighted. In some instances, there will be references to the other sections: ethnic/racial minorities, children with disabilities, and language minorities as this research is cross-sectional across the four "disadvantaged" subgroups. For instance, Coutinho, Oswald, and Best (2002) posit:

> Increased poverty, for example, is associated with increased LD identification rates among Black, Hispanic, and male Asian students. This result provides additional supportive evidence for the well-established finding that poverty is associated with increased risk for a variety of disability conditions, including LD. Thus, minority groups that experience more poverty than people categorized as White might be expected to have more LD (i.e., minority children may be differentially susceptible to LD because of higher poverty rates). (p. 54).

This quote contains several terms and examples that are germane to achievement gap literature; one of those examples is the comparison of racial groups, which will occur throughout this study. It also contains terms that will reappear and intersect throughout the different sections, in this quote they are: "poverty," "LD," and "racial minority."

Funding Gap. There is a need for resources for ELL, ELL-LD, and LD children

who are also racial minorities, as Anyon (2005) reports that children of color attend schools that are underfunded. The National Poverty Center reports that the percentage of Black children and Hispanic children living in poverty is at least double the percentage of White children and Asian children living at the poverty level (http://www.npc.umich.edu/poverty/). The center also reported that there are a larger percentage of foreign-born children living at the poverty level, in comparison to American-born children, finding an economic gap among these children.

` **Economic Gap.** When investigating an achievement gap, it is practical to investigate an economic gap, as researchers concur that it is one of the causes of an achievement gap (Barton & Coley, 2010; Anyon, 2005). Jencks (1998), co-editor of *Black-White Test Score Gap* writes,

> Reducing the test-score gap is probably both necessary and sufficient for substantially reducing racial inequality in educational attainment and earnings. Changes in education and earnings would in turn help reduce racial differences in crime, health, and family structure, although we do not know how large these effects would be. (p. 4).

It is widely reported that many children of color receive an education in schools that are underfunded. Anyon (2005) also referenced a funding gap as a rationale for an achievement gap, a finding that parallels the above quote by Jencks and Phillips (1998). The difference is that Jencks and Phillips advocated that closing the achievement gap would reduce financial gaps and racial gaps, whereas Anyon charged that funding is the rationale for the achievement gap. Anyon found that school districts educating the largest number of poor and minority students, had fewer state and local dollars to spend per

student than districts with the smallest number of poor and minority students. Anyon also cited state funding as an obstacle, since the money available to most city school systems had not increased enough to offset the disadvantages wrought by the economy. Money available to schools did not increase due to low property taxes and insufficient school financing, both of which have devastating effects. Anyon further maintained that poor districts receive approximately $1000 less than suburban districts; hence, states are spending a disproportionately high amount of money on their lowest-minority districts.

Consistent with Anyon's work, Kozol (1991) described differences between schools that are in districts that allocate more money to education, which provides the opportunity for better teachers and equipment. He maintained that most minority children live in poor areas, have poor schools, and therefore poor performance when compared to their non-minority peers. An example of this is shown in the first trial urban district assessment (TUDA) which revealed that six U.S. cities, that also contain large percentages of the nation's children that are eligible for free and reduced meals, are well behind the national average in reading and writing (Manzo, 2003, NCES, 2002). For instance, tests were given to 4th, 8th and 12th graders during the winter of 2002. The data showed that on the reading test, none of the six districts (Atlanta, Chicago, Houston, Los Angeles, New York, Washington, DC) met the national average score of 217 for the 4th grade test, or 263 for the 8th grade test (Manzo, 2003). The most recent trial urban district study indicated that scores were higher for four of the districts in the 2002 study for grades four and eight. There were no significant gains between the 2002 and the 2009 exam (http://www.nationsreportcard.gov/reading_2009/nat_g8.asp).

The TUDA study in the paragraph above found that children in a lower

socioeconomic group, such as families that are eligible for free and reduced Meals perform lower, than other children. There is consensus in the literature that educational opportunity is unequal for students who belong to a lower socioeconomic group in comparison to their more advantaged peers (Anyon, 2005; Ladson-Billings, 2005), keeping a performance gap between the groups.

Income & Net Worth. Several researchers, like Barton and Coley (2010) contend that socioeconomic status is a factor in student performance (Vogt & Shearer, 2007; Anyon, 2006; Coutinho, Oswald, & Best, 2002; Kozol, 1991). According to Barton and Coley (2010), there are financial gaps within socioeconomic status; that is, a difference in family income when Black and Hispanic families are compared to White families. They contend that White families have a larger family income than Black families and Hispanic families. They further maintain that there are even wider disparities in the net worth of Black families and Hispanic families in comparison to White families. The researchers define net worth as the difference between families' gross assets and their liabilities; explaining that net worth takes generations to build and citing past race relations in the United States as a causal factor in the net worth disparity. Barton and Coley's data indicates that minority income is sixty percent that of the majority; and that minority net worth is eighteen percent of the majority net worth. They conclude that economic disparity and upward mobility are factors in the achievement gap, as only one percent of White residents born in the bottom decile of family income remained there as adults, compared to forty-two percent of Black residents (Hertz in Barton & Coley, 2010, p. 29).

Oliver and Shapiro (2006) also discuss wealth disparity between Black and White

families, documenting inequality in financial assets and debt. They argue that wealth is a better indicator than income, as wealth "brings…power and independence" (p. 32). Lareau (2003) gave examples of differences between the working class and middle class as she explained that middle class families demonstrate confidence with school officials. This is in contrast to some families who were working class and demonstrated fear or vulnerability at school. The income and wealth disparities distinctively impacted families in her study.

Oliver and Shapiro (2006) also found that the Black-White mean wealth ratio is (.08) and the Black-White mean income ratio is (.62), among more than 20 families in their study. Similarly, The National Poverty Center reported a racial disparity in socioeconomic status, also referred to as an economic gap. In 2008, 24.7 percent of Blacks and 23.2 percent of Latinos were at or below the poverty rate, in comparison to 8.6 percent of Whites and 11.8 percent of Asians. In addition, the report described generational poverty as it indicated that 17.8 percent of foreign-born residents live at or below the poverty level, in comparison to 12.6 percent of residents born in the U.S. (http://www.npc.umich.edu/poverty/). Sampson, Sharkey and Raudenbush (2007) tracked the progress of 750 Black children living in poverty. The children were tracked for seven years, and their ages ranged from 6 to 12 years. Researchers tested the Chicago residents three times in vocabulary and reading, and found that living in poverty inhibited the academic and verbal development in children. The researchers concluded that living in a disadvantaged neighborhood reduces the verbal ability of Black children by ≈ 4 points, a magnitude that is comparable to one year of schooling. These findings are comparable to the figures that show children living in poverty fail to meet national averages, such as the

national reading scores in the TUDA study (http://www.nationsreportcard.gov/reading_2009), and state reading scores on a standardized assessment (http://bit.ly/JzXB71).

Vogt and Shearer (2007) maintain that most academic tasks and curricula reflect middle class values and experiences. Celano and Neuman (2008) had similar findings as they documented notable differences in the resources selected by children who live in a lower socioeconomic area in comparison to a higher socioeconomic area. In their analysis of middle-income and low-income library use, both groups of children observed in the libraries showed similar access to books, computers and other informational sources in these public areas. However, children in the library located in the low-income area selected materials with less print, in comparison to children in the library located in the higher-income area. Thus, the two groups were not using their resources equally. In addition, the children visiting the library in the middle-income area, spent more time with an adult reading to them, and the lower-income children spent more time alone with their text selections. Therefore, children in the lower income library spent less time, with less print, gaining less knowledge.

Special Populations. While the availability of the same access to resources is beneficial, Celano and Neuman (2008) showed how there can still be a disparity. Challenges that occur as a result of socioeconomic status continue to permeate educational spaces, and Johnson posits, "Reaching excellence in educational outcomes has nearly been the exclusive property of suburban homogeneous high socioeconomic communities" (2002, p. viii). The access to instruction and the quality of instruction for all children needs to be equivalent in order to equalize achievement gap outcomes.

The Teacher Quality under NCLB Interim Report (2007) showed:

> The percentage of teachers who are not highly qualified under *NCLB* is higher for special education teachers, teachers of LEP students and middle school teachers, as well as for teachers in high poverty and high minority schools. Moreover, even among teachers who were considered highly qualified, teachers in high poverty schools had less experience and were less likely to have a degree in the subject they taught.
> (http://www2.ed.gov/rschstat/eval/teaching/nclb/execsum.html?exp=3).

In these settings; that is, SE, ESL, and high poverty-high minority middle schools, students are unable to compete on the same academic level as other children in order to reduce any gaps in achievement that could exist (http://www2.ed.gov/rschstat/eval/teaching/nclb/execsum.html?exp-3). Some researchers find that underachievement among minority youth may lead to special education referral and placement. For instance, in an ethnographic study, Taylor and Dorsey-Gaines (1988) documented the lives of a family in the inner-city, some of which were placed in special education; not because the children were incapable of performing in general education due to a disability, rather because of continuous interrupted schooling as blue collar parents sought work and apartment living around the city. O'Connor and Fernandez (2006) analyzed the 2002 National Research Council report, which defined the impact of poverty on special education students. They concluded that structures and the configuration of schools situate youth of color in a deficit position. A deficit position refers to the habit of mind where disadvantaged children are considered less capable of performing in school.

Other research on Special Education students was conducted as part of the National Longitudinal Transition Study of Special Education Students (NLTS), characteristics of educational programs and services provided to secondary students (n=589) who were identified as LD in the 1985-1986 school year (Wagner & SRI International, 1990). LD students were more likely than other students to come from economically disadvantaged households, students spent 64% of their time in general education, without additional support outside of special education, (i.e. tutoring). Most LD students were held to the same grading standard but not provided direct services, nor were their regular education teachers provided with substantial support for these students (Wagner & SRI International, 1990).

Language Use and SES. In addition to inhibited verbal development (Sampson, Sharkey, & Raudenbush, 2007), limited access to print material (Celano & Neuman, 2008), poor teacher quality (http://www2.ed.gov/rschstat/eval/teaching/nclb/execsum.html?exp=3), and inadequate support (Wagner & SRI International, 1990); MacSwan and Rolstad's work (2006) extends the research to another challenge for economically disadvantaged children; that is, the role that socioeconomic status has in language use. They found that socioeconomic status is a factor in language and language use. While Sampson, Sharkey, and Raudenbush (2008) used disadvantaged neighborhoods, cognitive theory and *Bell Curve* theories; these researchers cited linguistic deficit theory. Linguistic deficit theory is a theory that examines differences in language properties that are characteristics of that language as inherently inferior to other language varieties. MacSwan and Rolstad also referenced Dittmar (1976) (as cited in MacSwan & Rolstad, 2006) regarding language

and socioeconomic status, arguing that, "the language of the educated class is the developmental goal of the unschooled" (p. 4). MacSwan and Rolstad wrote that the United States Language Arts curricula is used to validate Standard speech, and minority languages are seen as primitive, causing challenges for students who do not speak Standard English.

Villegas' (1988) discussion contained a similar finding, as she contended that bias toward speaking English and the middle class is built into teaching practices that cause challenges for children who either do not speak English, or do not come from a middle class background. She maintained that the dialect of English spoken in schools is a language variety that is "standard" mainly because of the power of those who speak that language variety (Villegas & Lucas, 2002). She posited that when students in non-dominant groups underperform in comparison to dominant groups, it is largely due to linguistic differences. Likewise, the linguistic differences, or differences in language and speech patterns between children in high poverty areas and teachers in middle or upper class areas can create communication challenges between teachers and students and therefore, students and school (MacSwan, 2006; Villegas, 1988; Taylor & Dorsey-Gaines, 1988). These differences or biases, according to Villegas (1988):

> …legitimates the privileged position of the dominant groups in society and confirms the inferiority of minority groups---If dominant groups have the power to impose their own language variety on the educational system, it is to be expected that subordinate groups, whose language varieties are afforded less prestige will encounter difficulties in school---minority students experience linguistic gaps, while middle class students have a smoother transition. (p. 260).

Villegas recommends that all teachers take a course in sociolinguistics, because when teachers are unaware of the fact that all languages are complex and rule-governed, then children from a different cultural background or socioeconomic status are deemed less intelligent or less abled. Villegas' findings parallel the compelling body of data that directly relates to the achievement gap statistics that children who are identified as economically disadvantaged perform lower than children who are not (Barton & Coley, 2010; Anyon, 2005).

The research on socioeconomic status provides evidence of a divide between children who are FARMS eligible or living at the poverty level and those who are not. There are also findings that report differences in achievement when students from a poorer neighborhood have the same library resources as children in a more affluent one. Researchers cite differences in foreign-born residents and U.S. residents who are economically disadvantaged as well, and there is literature that documents the increase in special education, particularly the LD category. ELL-LD students and their placement on the socioeconomic scale is not reported. If there is a relationship between SES and LD, and SES and language as reported here, then the academic performance of ELL-LD children who are FARMS eligible is a meaningful exploration. It is also necessary to investigate the ways in which language is acquired, and to pursue the literature regarding the way that English instruction is delivered to ELLs in the U.S.

Limited English Proficient-Oral Language

Overview. MacSwan and Rolstad's (2006) reference to language and linguistic deficit theory in the previous section are also relevant in this section, as the history of

English in the US will be discussed. Villegas (1988) referred to English as the "language of power," and since it is the official language of the United States, the policies and practices associated with speaking English govern the instruction and assessment of how English Language Learners reach proficiency in English. In order to fully understand these contexts for the ELL-LD child, one must consider the types of opportunities that are provided to learn English in school, in both verbal and written form.

English Only. In 1983, Senator Hayawaka and Dr. John Tatum founded an organization called "U.S. English" (http://www.ncte.org/cccc/resources/positions/nationallangpolicy). The organization promoted English-only legislation in Congress and at the State level. By 1992, sixteen states declared English the official language; and the English-only mandate (also referred to as English First) currently exists in Massachusetts, Arizona, and California (Artiles et al, 2010). These states are listed as one of sixteen states with at least a half-million Latino residents, as well as one of twenty states where Latinos are the largest minority group, according to the U.S. Census Bureau's 2009 statistics (http://quickfacts.census.gov/qfd/states/00000.html). Advocates for English-only are generally not in favor of multilingual education programs (de Jong, 2008). Multilingual programs include English as well as other languages as an instructional medium. Supporters of English-only, are of the general belief that bilingual and dual language programs will hinder the achievement of ELL children by not placing an emphasis on learning English.

Bilingual, dual language and two-way immersion programs are supported by the English Plus movement

(http://www.ncte.org/cccc/resources/positions/nationallangpolicy). A dual language or two-way immersion program is one that incorporates two languages (e.g. English and Spanish) in all subjects with no translations (DeJesus, 2008). As a result of the English-only movement, the number of states with bilingual, dual language, and immersion programs are reducing (de Jong, 2008). Bilingual education is a program in which students receive instruction in two languages (Fradd & Correa, 1989).

In 1989, New Mexico, Oregon, and Washington passed English Plus laws protecting the use of languages other than English. The advocates for English Plus are referred to as "pluralists" and their research and practice is in direct opposition to English-only (de Jong, 2008). There are numerous studies that support bilingual and dual language instruction and assessment (Haager, 2007; Harry & Klingner, 2006; Roseberry-McKibbin & O'Hanlon, 2005). In Quebec, dual language programs are standard, and are designed to solve the problem of teaching French to English-only Canadian populations.

Bilingual Instruction. In 2008, researchers in Puerto Rico showed the benefits of a dual language program (DeJesus, 2008). Dual language programs require a cohort of two different native speakers. In this study, children enrolled in kindergarten and first grade were identified as either ELLs, or ED (English Dominant) students. Immigrant groups included Dominicans, and Central and South Americans. Puerto Ricans were the largest group, and most of the teachers of the treatment group were Cuban. The dual language program was a 50-50 language distribution; meaning, all subjects were taught in both languages without any translations. The study did not indicate the number of students in the sample, and after five years statewide assessments were used to disaggregate scores of both groups. After five years, the English spoken by English

Language Learners (ELLs) and native English speakers was difficult to distinguish as they both wrote well and spoke "unaccented" English and Spanish. In other words, the Spanish-speaking supervisors and observers could not distinguish students who were not native Spanish speakers, showing the benefit that both English and Spanish teaching have on oral language proficiency. At the end of the program, 47% of the children in General Education achieved proficiency, 25% of the transitional bilingual students, and 80% of dual language students achieved proficiency, closing the achievement gap between ELLs and EDs by 33 %, a statistically significant difference. ELL and ED children outperformed their English-only peers in the school. Additionally, ELLs in the dual language program achieved parity with English-only students in the district and outscored them by 13%. They also outperformed English-only students in the state by 9%. The study challenges the English-only mandate, since the dual language program benefitted, not harmed, both non-native speakers and native speakers. Other researchers who advocate for bilingual instruction came to similar conclusions (Rolstad & MacSwan, 2011; Solano-Flores, 2006). Students involved in the study were able to acquire a second language by receiving instruction in both their native language, and in English, contributing to the research of second language acquisition.

Second Language Acquisition. Second language acquisition or sequential bilingualism (Rolstad & MacSwan, 2011) is commonly defined as a term for students who are proficient in one language and are attempting to learn another. There are many models for second language acquisition, including the Model Theory. In the Model Theory, adults have two ways for developing ability in a language (Krashen, 1981). One is subconscious language acquisition; the other is conscious language learning. In

conscious language learning, error correction and explicit teaching of rules is suggested, in subconscious language learning the speaker is concerned more with relaying the message than with language structure and language forms. Language acquisition for children requires meaningful interaction in the target language and involves natural communication (Krashen, 1981).

There are other tenets of language acquisition that are not designed from a particular model, rather they relate to a misinterpretation or difference in language use due to a difference of culture. In some instances of language acquisition, there is cultural discontinuity (Au, 1998). Cultural discontinuity is the internal conflict brought about by a disparity between the language and the culture of the home, and the language and culture of the school (Klingner, Artiles, & Barletta, 2006; Fradd & Correa, 1989; Taylor & Dorsey-Gaines, 1988). For instance, Abram, Ferguson, and Laud (2001) profiled an ESL student who rejected the teaching style of a New York school because it greatly differed from the way English was taught at a school managed by the child's family member. The student did not complete assignments given by her teacher; instead, she turned in her own assignments as evidence of learning English. The culture of the student and the family member were similar, while the culture of school and the student were not. The researchers bridged the gap between home and school culture when they introduced a text that was centered around the student's native country, validating the student's culture.

Instruction that encourages the acceptance of native languages and cultures while facilitating the learning of English vocabulary is also encouraged (Freeman & Freeman, 2002). In a study that values students' home language, Ladson-Billings described a setting where students were allowed the opportunity to "code-switch" (2001). Code

switching is communication between constituents in two language forms, as long as the language requirements or word order requirements are met for both (MacSwan, 2004). In the Ladson-Billings study, students were taught similarly to students in a bilingual ESL class where they were encouraged to use their home language, not having to code switch while they acquired the secondary discourse of "standard" English (Gee, 1989). Thus, students were permitted to express themselves in ways in which they were knowledgeable and fluent. They were then required to "translate" to the standard form of English. By the end of the year, the students were not only facile at "code switching" but could better use both languages (Ladson-Billings, 2001).

Rolstad and MacSwan (2010) explain that "code-switching" should not be confused with "borrowing" from a language. "Words are often *borrowed* from one language by another in situations of language contact" (p. 311). For instance, a French word, "genre" may be used by a monolingual English speaker, who may even experiences difficulty pronouncing the word (because the initial sound is not a regular component of English phonology). The English speaker may have some knowledge of the word without full knowledge of French grammar. Code-switching, on the other hand, requires knowledge of two languages, and occurs when there are cognates, similar word use by both languages (Rolstad & MacSwan, 2010).

The research did not reveal many recommendations or resources on bilingual instruction and assessment for groups of students who spoke a different vernacular of a standard language; only for students who spoke a national language (e.g. Spanish); similar to the DeJesus (2008) article. The literacies of international students from areas like the Caribbean who employ different versions of English (Banks & Banks, 2006;

Delpit & Dowdy, 2002), as well as other World English varieties should be assessed to ensure the student's instructional needs are being met. These families may write that they speak English at home on a Home Language Survey (Short & Fitzsimmons, 2007) or an entrance interview at the school or district level, and fail to receive additional English instruction. This may also apply to families who code -switch, as described by Ladson-Billings (2001), or who speak a language that is associated with a non-Standard English variety due to cultural differences and socioeconomic status described in the Economically Disadvantaged section (see Language Use and SES).

There are studies that document language differences for languages other than English (Otheguy et al., 2007; Wagner, Francis, & Morris, 2005), including American born children who speak a different vernacular of Spanish (Otheguy et al., 2007). Wagner and colleagues referenced Spanish speakers from Spain, Mexico, and Puerto Rico and documented the variance in language, concluding that there are a limited number of professionals in educational settings each using Spanish dialects to assess children. Language variations are also a challenge for languages with no written counterparts, like Cantonese and Mandarin. These languages are difficult to assess due to the use of tone to differentiate the meaning for words that are otherwise identical (Wagner et al., 2005).

The relevance of language variety to this study is the evaluation and assessment of children with a varied language pattern, particularly minority children, FARMS eligible children, children identified as LD, and children identified as ELL. Each of which the previous sections described as possibly having different language patterns. What language should be used to assess these children? How are they performing on assessments? Should all students take the same assessments?

Oral Language Assessments. Several researchers document challenges with oral language with respect to assessment and evaluation (Reyna, 2008; MacSwan & Rolstad, 2006; Roseberry-McKibbin & O'Hanlon 2005; Abrams, Ferguson, & Laud, 2001; Cummins, 1984). Even though there are different varieties of language use for native English speakers (Eberhardt et al., 2008; Bucholtz et al., 2007; Ladson-Billings, 2001), oral language testing is only required with ELLs (MacSwan & Rolstad, 2006). MacSwan and Rolstad explore how a language majority student performs on an oral language test. They stated that thirteen states require ELLs to undergo oral language tests as part of the ELL identification process-AZ, CT, DC, HI, MS, OH, OK, OR, SD, TX, VA, VI. The researchers maintained that ELLs are constantly referred to as "non-nons," or lacking proficiency in both English (non) and their native language (non), arguing that mainstream English speakers do not take oral language tests. In order to examine the challenges of oral language assessments, they used two tests most commonly used in the thirteen mandated states; citing poor translations, even in the directions, as one of the tests required children to provide answers with subjects and predicates (the researchers stated that Spanish does not require overt subjects, and therefore even the directions were unclear). Their findings were that both the IPT Spanish and the Language Assessment Scales Oral Spanish (LAS-O), found Spanish speaking students, as limited in their first language at 90% and 74% respectively. Therefore, 90% (n=153) and 74% (n=119), tested below the expected fluency threshold. However, these students were not in Special Education, they were Mexican nationals. The researchers contested the use of oral language K-12 testing, arguing that native English speakers taking an oral language test may perform similarly. According to the research in the next section by Solano-Flores

(2006), it would depend on the dialect of the test.

Dialect & Register. Learning a language includes learning a language dialect (Solano-Flores, 2006). Solano-Flores described the relevance of dialect with respect to evaluations and assessments. Dialect reflects social structures, geographic location and race (MacSwan & Rolstad, 2006; Solano-Flores, 2006). ELLs from the same broad linguistic group but from different areas across the U.S. can be speakers of different dialects of their own language and speakers of different dialects of English (Solano-Flores, 2006). The language that students use sometimes conflicts with Standard English, causing a mismatch between teachers and students that is perceived as a lack of linguistic ability (McFeeters, 2008). Students learning English navigate between their prior knowledge, the language of the region, and Standard English (de Jong, 2008).

ELLs and minority children are more likely to be learning in a culturally and linguistically unfamiliar environment. Having to construct understanding without background knowledge, in an attempt to process new information is one of the many reasons that students who are not linguistically similar to mainstream students fail (Klingner, Artiles, & Barletta, 2006, Cohen, 2003). A limited prior knowledge, or schema, places a language minority student at a disadvantage (Solano-Flores, 2006).

There are instances where a local or regional language is a nonacademic English variety that is recognizable by American born English speakers, but unfamiliar to ELLs (Eberhardt, 2008; Bucholtz et al., 2007), and other instances when the local languages are unfamiliar to individuals who live outside of that region; even native English speakers. Eberhardt (2008) studied a North American English dialect and a Pittsburgh African

American dialect in order to observe the ability to communicate in and across communities. Buchholtz et al., (2007) examined a dialect in California. Both studies included non-local residents as participants to examine whether native English speakers can recognize the local language. The researchers found that the phrases, words, and sound patterns were unrecognizable by residents of other areas, an example of how language patterns can vary within the United States, even among native English speakers. The rationale for the inclusion of literature that references language patterns, is to reveal that linguistic differences, specifically dialectic differences, can present challenges for children who are learning English, and create an achievement gap or a significant difference in performance between children who speak a different dialect than their teachers and peers, and those who do not.

Solano-Flores (2006) incorporates both sociolinguistics and sociocultural aspects of language in his study, and explains that dialect refers to variation of a language that is characteristic of the users of that language. This is similar to how "dialect" is used in the above study by Eberhardt (2008) and Bucholtz et al. (2007). Solano-Flores also introduces the term "register." Register is used frequently in sociolinguistics. Register means to understand when to use English in appropriate ways and how to use English in an educational setting. Register includes characteristics of academic language, and is defined by situations and contexts. For instance, performing well on a state exam requires the student to know more than the content area but also the register of the test and the discipline tested (Solano-Flores, 2006).

The lack of register and dialect may place students in situations where they appear linguistically weak (Solano-Flores, 2006). When students appear weak in a standard

language, they are sometimes placed in lower level courses, with the assumption that there is a disability rather than a language difference (Billings, 2008; Case & Taylor, 2005; Rinaldi & Samson, 2000). Improper instructional placement does not adequately prepare the child for a rigorous education (see *Tracking* in the Race Section) and can happen as a result of cultural differences (Klingner, Artiles, & Barletta, 2006; Fradd & Correa, 1989; Taylor & Dorsey-Gaines, 1988), improper verbal testing (MacSwan & Rolstad, 2006), and linguistic differences with dialect and register (Eberhardt, 2008; Bucholtz et al., 2007; Solano-Flores, 2006). These challenges confound the schooling of the language minority and racial minority student, and may create achievement gaps for these students (Barton & Coley, 2010; Endo, 2009; Wang, 2008; Jencks & Phillips, 1998).

In the next section, research is reviewed that extends beyond oral language proficiency. Reading tests and challenges with written assessments are described; in particular, results of high-stakes assessments that feed achievement gap data (i.e. NAEP) and challenges with standardized testing.

Limited English Proficient-Written Language

Written Assessments. The structure of oral language provides the foundation for written language (Chard, Ketterlin-Geller, Baker, Doabler, & Apichatabutra, 2009) and the results of CRESST (National Center for Research on Evaluation Standards and Student Testing) research led to the identification of linguistic features that have greater effects on ELL students' performance on standardized tests (Abedi, 2006). According to Abedi (2006), reducing the impact of language factors on content-based test performance,

can improve the validity and reliability of assessments for all students. For instance, one question on a national assessment read, "Circle the *clumps* of eggs in the illustration"; if academic language is being advocated for, a student speaking a native language other than English may not have had the opportunity to learn what a "clump" is, although they are aware of the other words in the sentence (Abedi, 2006, p. 2287). Another example of the use of unfamiliar words appears on a mathematics state exam, "Patty expects that each tomato plant in her garden will *bear* 24 tomatoes" (p. 2287). The students may possess the content area knowledge or mathematical skills necessary to solve the problem, however the use of the word "bear" could refer to a noun, rather than a verb, confusing the reader.

As described above, students who are eligible for ESOL or students with a different English dialect may find challenges with some of the less common uses of English on content-based assessment exams (Abedi, 2006; Solano-Flores, 2006). When bilingual and multilingual students fail, often the lack of English is isolated as the primary reason for the child's failure (de Jong, 2008). Children who do not speak or write Standard English, may exhibit the same content knowledge as Standard English speakers (Taylor & Dorsey-Gaines, 1988). However, they may be incapable of describing or exhibiting that knowledge with the same written and verbal ability as a native English speaker. Construct validity becomes an issue on assessments that are appropriate for ELL students; that is, assessments that contain less idioms and unfamiliar words, and have the same rigor of other content-area tests without losing the content material (Abedi, 2006; Solano-Flores, 2006).

Solano-Flores (2006) examines a compilation of responses from a group of ELL children whose first languages were Spanish, Chinese, and Haitian Creole. The responses were to the same set of math and science items, attempting to show students responses to each item in both languages. There were inconsistencies across both items and languages. For some items, some students performed better in their first language, and other items, they scored better in English. Using generalizability theory (a psychometric theory that deals with measurement error), the researcher found that in addition to their knowledge of the content area, ELLs had different sets of strengths and weaknesses in their native language and in English. First, ELLs have different patterns of language dominance that result from different kinds of language developments. Second, the linguistic proficiency for ELLs varies in academic context and social context, as does the education setting (e.g. bilingual or immersion), and how language in that setting is emphasized. Third, Solano-Flores concluded that bilingual children do not always replicate their skills across languages.

Finding the most effective methods to assess ELLs is critical so that they have the same opportunity as monolingual children do, in order to accurately demonstrate what they learned. If this does not occur, then a detected achievement gap for a population may be reflecting an assessment that is not appropriate or valid for ELLs. There is a lack of valid assessments for ELL children (Liu, Ortiz,Wilkinson, Robertson, & Kushner, 2008; Roseberry-McKibbin & O'Hanlon, 2005; McCardle, Mele-McCarthy, & Leos, 2005), and there are researchers that contend that a native language assessment is best suited for the ELL child (Artiles & Klingner, 2006; Roseberry-McKibbin & O'Hanlon, 2005).

As previously stated, NCLB 2001b indicates that ELLs can take standardized tests in their native language for 3 to 5 years. The reauthorization of Title 1 of the Elementary and Secondary Education Act of 1965, calls for the provision of reasonable accommodations. According to NCLB (2001b), ELLs may take the reading/English language arts state assessment in their Informal Assessment of English Language Learners 111 native language for three to five years. Per Title I, Part A. Sec. 111(3)(C)(ix)(II), accommodations can include

> ‘‘to the extent practicable, assessments in the language and form most likely to yield accurate data on what ELL students know and can do in content areas.’’ These accommodations may include small group administration; extra time for flexible scheduling; simplified instructions; dictionaries; recorded, native language instructions, and allowing students to record responses in their native language.

However, the literature is inconsistent regarding the amount of time suggested for ELLs to receive English instruction (Spinelli, 2008). Conversely, there is consensus regarding the premature removal from ESL, as researchers maintain that it is a counter to student achievement (Klingner & Harry, 2006; Lesaux, 2006; Abrams, Ferguson, & Laud, 2001).

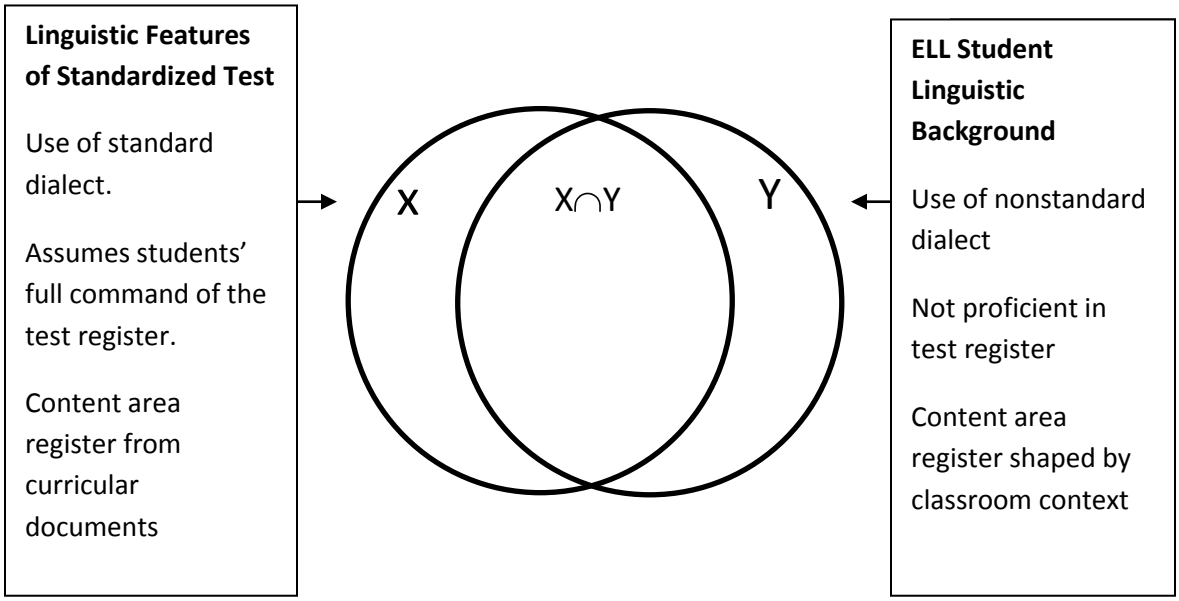
When students exit from ESL prematurely, they are at risk for not having the same level of CALP as their more English proficient peers. CALP, or cognitive academic language proficiency, is from Cummins’ Threshold Hypothesis (2000), and there is a distinction between CALP and BICS or basic interpersonal communication skills. BICS and CALP are referenced throughout the literature. Cummins however,

prefers the terms, “interpersonal communication skills” for BICS and “academic language” for CALP (2000). The former is necessary to function socially, and the latter is necessary to function in school.

Dialect & Register Revisited. While researchers contend that CALP is necessary to progress in an academic setting (Lesaux, 2006, Cummins, 2000), dialect is a factor for a student taking a written examination (Solano-Flores, 2006). Solano-Flores and Li (2006) concluded that dialect could be as important as language in the testing of ELLs. They tested fourth and fifth grade ELL students whose first language was Haitian Creole. Students were assigned to two treatment groups. In one group, the assessment employed standard dialect, and in the other group the assessment employed two dialect versions. The study showed that there existed considerable score variation in the second group due to the interaction of the item, student and dialect. The magnitude of the score variation was as large as the magnitude of score variation due to item, student and language. Therefore, Solano-Flores argued, ELLs are tested in some dialect of the language, whether tested in English or not.

In addition, G theory analyses revealed that ELL children do not necessarily perform better if they are tested in a standard version of their first language, than if they are tested in Standard English (Solano-Flores, 2006). Solano-Flores gave examples of linguistic alignment, the correspondence between the feature of dialect and register used in tests and the feature of the language students are exposed to informally and formally in an educational context. Misalignment occurs when a phrase or expression is unfamiliar (the area of X that is outside the intersection $X \cap Y$ in Figure 3). Students were capable of resolving misalignments in many cases, but within certain limits.

Source: Figure 3. Commonalities and Differences Between the Linguistic Features of Standardized Tests and the Linguistic Backgrounds of ELLs from (Solano-Flores, 2006)



The area of X that is inside X∩Y represents similarities between the language features of standardized tests and the linguistic backgrounds of ELL students. The area of X that is outside X∩Y represents language features of a test that may be challenging to ELLs because of their schema, lack of familiarity with the dialect, or the register used in the test is not synonymous with a student's instructional experience. The terms and conventions on the test may not be the exact terms from the curriculum or texts, making it difficult for language minority students to identify them. Understanding how students with different language patterns perform on assessments contributes to achievement gap research, and

decisions can be made or policies can be revised to consider dialect and register in test item alignment for students taking state and national tests.

Reading in English. In order to resolve some of the challenges with misalignment, the language of the test is germane to the context (Solano-Flores, 2006; MacSwan & Rolstad, 2006; McCardle, Mele-McCarthy, & Leos, 2005), however, as the investigation of appropriate assessments continues, it is found that there is a lack of uniformity in the research regarding the language of assessment for ELLs. Solano-Flores (2006) contended that there should be two tests, one in English and another in the other language on the same topic. Solano-Flores (2006) and MacSwan and Rolstad (2006) insisted that students should be tested in the language of their community. Solano-Flores also argued that translated instruments might have poor psychometric properties. Spinelli (2008) maintained that standardized assessments should be given as dual language instruments, and other researchers concurred (Klingner & Harry, 2006; Wagner, Francis, & Morris, 2005; Roseberry-McKibbin & O'Hanlon, 2005).

Short and Fitzsimmons (2007) make suggestions for instructional accommodations that are more appropriate for ELLs to ensure their success on assessments. Recommendations for accommodations include, unlimited time, simplified language, and aligning the readability of test items that are not in the range of the student's English comprehension level. Teachers should provide students texts that are written at the students' instructional level, in order to account for students' different schema. Further, teachers should provide additional assistance so that the text is comprehensible and accessible (Echevarria, Vogt, & Short, 2009). Short and Fitzsimmons also maintain that adolescent ELLs generally have a strong verbal command

of their native language, but their knowledge of English and academic content knowledge may vary (2007).

McCardle and colleagues (2005) argued that assessments are needed for ELLs with a native language other than Spanish, their alternative suggestion was for the design of instruments for students where native language is negligible for more accurate identification (McCardle, Mele-McCarthy, & Leos, 2005). Liu and colleagues concluded that assessments given to ELLs are not normed with ELLs, causing a challenge with the validity of the test (Liu, Ortiz,Wilkinson, Robertson, & Kushner, 2008; Lesaux, 2006; McCardle, Mele-McCarthy, & Leos, 2005). Understanding the supporting evidence on appropriate texts used by ELLs can reduce any performance differences contributing to an achievement gap if students understand the dialect and register of the test (Solano-Flores, 2006). Assessments must be valid (Abedi, 2006), especially in districts using a single instrument for identification or the discrepancy approach. There is research that challenges the process for accurate identification of ELLs, as well as research that challenges the process for accurate identification of ELLs who are being identified as LD. There are two models that determine whether a student has a learning disability. In the next section, the two models are explained.

Disabled

Learning Disabled. In 1977, the discrepancy model was used in identifying children as learning disabled. Learning disabled was a term that described a student with a severe discrepancy between achievement and intellectual ability. The discrepancy model requires the use of I.Q. testing and cut scores in order to make decisions about

learning disabilities and student placement in special education. Several researchers maintain that the discrepancy approach is problematic (Liu, Ortiz,Wilkinson, Robertson, & Kushner, 2008; Haager, 2007; Klingner & Harry, 2006), and that the use of I.Q. testing is a primary challenge in the identification process. While it is observed that even monolingual English speakers demonstrate poor proficiency on I.Q test, the use of I.Q. testing is of particular concern when applying criteria to culturally diverse students (e.g. English Language learners) (Haager, 2007). The previous section included the debate on cultural misalignment and the language of the test for ELLs; however, reading disabilities are approximately 5 percent in all alphabetic languages, according to Snowling (2000) (as cited in Wagner et al., 2005), complicating the identification process for low-performing ELLs.

Assessing Reading. There are several factors to consider when assessing reading disabilities and reading knowledge, particularly for students who speak a different language than the instructor. For instance, deficits in alphabetic identification and decoding are often indicators that there is a lack of cognitive ability and phonological skills (Chard et al., 2009; Koutsoftas, Harmon & Gray, 2009). Alphabetic principle, which is the awareness of sound structure of written language (grapheme-phoneme correspondences linking spelling of a word to its pronunciation) is necessary for many students to decode (Ehri, et al., 2001, in Burke, Crowder, Hagan-Burke, & Zou, 2009). Decoding difficulties limit students' opportunities to experience text and limit vocabulary and comprehension as a result. Therefore, those children who lack English alphabetic principal and/or decoding skills will have a challenge understanding words on an assessment because they lack the knowledge of the letters and word parts contained in the

word (Chard et al., 2009). Early readers without these skills and English Language Learners (ELL) with a different alphabetic system may struggle with decoding and possibly receive a learning-disabled label as a result (de Jong, 2008). Like decoding, phonological ability is based on oral ability rather than written ability (Chard et al., 2009). Below average readers, including ELLs commonly demonstrate a challenge with metalinguistic skills, supporting the idea that there is a basic phonological deficit (Burke et al., 2009). Students experiencing a phonological deficit are also identified by a below average speed of accessing phonological skills, including both slow readers and learning disabled children (Burke et al., 2009; Chard et al., 2009). Consequently, many educators do not consider other linguistic reasons that students read below average. Therefore, what appears to be a lack of phonological skills is considered a deficit, rather than identified as a cultural or linguistic difference (Abedi, 2006), and speakers of other languages and other English varieties may demonstrate phonology differently. As such, many ELL children are not properly identified (Spinelli, 2008), and they are sometimes diagnosed as LD (Spinelli, 2008; Coutinho, Oswald, & Best, 2002).

The largest portion of students in special education continue to be those identified as learning disabled (LD) (Coutinho et al., 2002). The Individuals with Disabilities in Education Act (IDEA, 2004) identifies thirteen disability categories: autism, deaf-blindness, emotional disturbance, hearing impairment, mental retardation, multiple disabilities, orthopedic impairment, other health impairment, speech or language impairment, traumatic brain injury, visual impairment including blindness, and specific learning disability (http://wwwnichcy.org/pubs). The National Dissemination Center for Children with Disabilities (2007) and The United States Department of Education Office

of Special Education Programs (2006) consider learning disabled a subjective, non-medical term.

According to the Individuals with Disabilities in Education Act (IDEIA, 2004), if a student with one or more of the basic psychological processes in understanding or in written language, that may manifest itself in challenges with spelling, writing and reading, the child can be identified as learning disabled (http://idea.ed.gov/explore/view/p/,root,dynamic,TopicalBrief,23). Researchers assessed the criteria outlined to identify LD students set forth by IDEA (1997) in order to evaluate over-identification (Coutinho, Oswald & Best, 2002; Herrera, 1998) (see Race section on *Over-identification*). They define LD, challenge the methods used to assess it, and suggest how best to determine eligibility (Harry & Anderson, 1994). The Office of Special Programs (OSEP) indicates that a child who is identified LD does not meet state-approved grade-level standards in one or more of the following areas, when provided with learning experiences and instruction appropriate for the child's age or state-approved grade–level standards: Oral expression, Listening comprehension, Written expression, Basic reading skills, Reading fluency skills, and Reading comprehension (Office of Special Education Programs, 2006). Descriptors provided by both IDEA and OSEP are included because IDEA and OSEP govern special education programs and processes.

Reid et al., (1997) argued that the learning disabled definition specifies that a severe gap between achievement and intellectual ability is not required, deeming the criteria ambiguous and void of sufficient information. They contend that even the requirement of multiple method evaluations relies on inferences, rather than objective

measures. They argue that the criteria do not address a methodology for the psychological component of LD, and therefore, in many cases there is no clear distinction between low performing students and students who require special education services in the LD category (Hale, Naglieri, Kaufman, & Kavale, 2004; Reid et al., 1997). In addition, high incidence, low-severity disorders, like LD, are characterized by a continuous, multivariate distribution (Wagner, Francis, & Morris, 2005). Disabilities that require a medical diagnosis, tend to be absent or present, however, there is a cut point for LD diagnoses, and the criteria for the placement of the cut-point is challenging to validate according to Wagner's team (2005). Liu and colleagues (2008) concur, as they describe that the cut-point varies across states, and problematizes the special education referral process.

Referral Process. Research has not addressed the considerations of designing pre-referral interventions for low performing ELLs as part of the referral process (Wilkinson, Ortiz, Robertson, & Kushner, 2006; Klingner & Harry, 2006; Lesaux, 2006). Wilkinson and contemporaries (2006) conducted a study in Texas, where discrepancy is the primary qualifier for special education. The team examined the profiles of students who were identified as ELLs with a reading related disability. In their study of twenty-one ELL-LD profiles, there was no evidence of early intervention or pre-referral strategy use, or any form of alternative program support for six of the children. Rhodes et al., (as cited in Etizalde-Utnick, 2008) listed 100 questions that educators could use for pre-referrals, but there is not a significant amount of literature on effective pre-referral strategies for the ELL-LD process. Klingner, Artiles, and Barletta (2006) argue that we know more about unsuccessful strategies than we do about effective strategies that will reduce referrals.

This could lead to an achievement gap if ELL-LD students are not identified properly. Reducing referrals is essential, primarily at the secondary level where students are over-represented (Rueda & Mueller, 2006).

Overrepresentation refers to unequal proportions of students in special education programs. ELLs are underrepresented in the elementary grades, and significantly overrepresented at the secondary level. Ironically, the goals of schooling change as students move from the elementary grades, and the foci at the different levels (i.e. elementary school and middle school) are different (Liu, et al., 2006). For instance, in the early grades, communication is an instructional goal; however, over the years, the focus becomes more academic and challenging (Liu et al., 2006) requiring more than the BICS that the primary grades require. This presents a challenge when trying to identify indicators for what determines a learning-disabled child, who speaks a language other than English (Haager, 2007).

Case studies of ELL-LD. English language learners present a different set of factors, and some do not experience difficulty in their native language (Abrams, Ferguson, & Laud, 2001). Also, it has been reported that ELLs take assessments that monolingual children do not; such as, the Oral language assessments mentioned in MacSwan and Rolstad's (2006) study. This may lead to inappropriate identification, or over-representation for LD, depending on the validity of the test (Abedi, 2006) and the dialect of the test (Solano-Flores, 2006). English Language Learners with limited proficiency in both English and their native language show the highest rates of identification in LD compared to other subgroups (Artiles et al., 2005 in MacSwan & Rolstad, 2006). Some ELLs have no history of LD, the problems surface when students

begin learning the second language. Abrams and colleagues (2001), described a student who struggled with the tasks of copying words, and spelling words. The student spoke Norwegian, which is more rule-governed, than English (Cummins, 2000). The student flourished in his native language however, he was inattentive, and paid attention to irrelevant details while reading. He was exposed to English after one year; and mainstreamed after direct instruction, spelling instruction, and phonemic awareness.

In a different case, a student learned English in her home country, and refused to acknowledge that she needed further English instruction (i.e. ESL). When she came to the U.S., she rejected her native language and sought peers who spoke English. She had fragmented vocabulary and incomplete mastery of written English. The researchers, who were also the teachers in these studies, recommended that the student take courses in her native language to build proficiency so that they would transfer to English (Cummins, 1984). In this student's case, there was not mastery in either language. The student was mainstreamed after these strategies were in place, having the opportunity to build CALP in her native language and in English.

Second language competence in general, and CALP in particular, is a necessary tool for students' success (Etizalde-Utnick, 2008; Cummins, 2000). In Maldonado-Colon's (1995) study of 16 children of Mexican descent, who were identified as ELL-LD, parents assumed that because their child used BICS at home, that they had the necessary skills to be successful. In twelve of the homes only Spanish was spoken, in four homes both Spanish and English were spoken, and in two of the homes the parents felt their English was stronger than their Spanish. The study revealed that in addition to the parents not having the knowledge of CALP, the teachers thought that BICS would

eventually become CALP without specialized instruction (e.g. comprehensible input). Similarly, in Klingner & Harry's (2006) study, teachers were waiting for students to be proficient in English prior to pre-referral, without specialized instruction. In the Abrams et al., (2001) study, once the student received native language instruction, specific to her needs, she was able to meet the expectations in English, and was no longer at risk for ELL-LD.

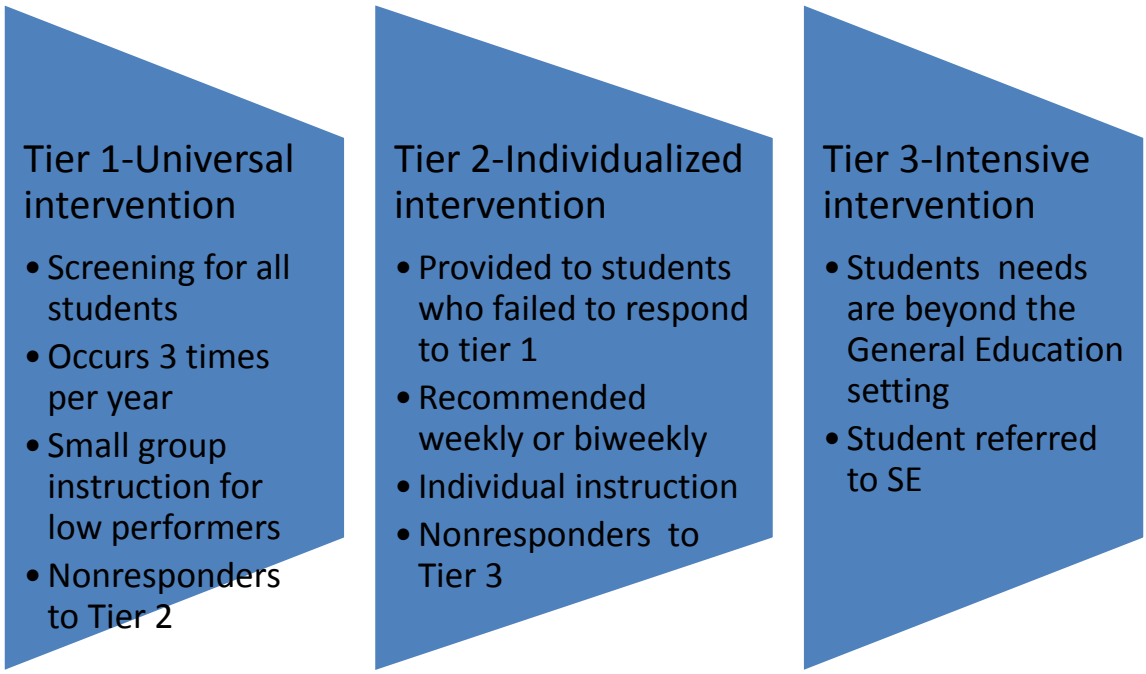
These case studies do not reveal how ELL-LD children perform in comparison to other ELLs nor other children in SE, and they do not indicate how ELL-LD or ELL-SE children perform on high stakes assessments. However, they do provide insight into the lives of children identified as ELL-LD and some instructional strategies for children in this subgroup.

The next part of this section includes alternatives to the discrepancy approach for children tested for Special Education and its implications for children who are not mainstream students. Much of the research that was conducted prior to 2004, and published thereafter; and either employed the discrepancy model or the alternative, Response to Intervention (RTI).

Response to Intervention. The discrepancy model is still an option for LD identification, however in 2004; the Response to Intervention model became another option for determining the presence of a learning disability (IDEA, 2004). Under the re-authorized IDEA legislation, states may not require the use of discrepancy material (Haager, 2007) and states have the option of using a RTI approach for LD identification. Federal guidelines state that a multidisciplinary team that includes the parent or guardian

must meet to examine evidence toward the child's progress toward scientifically based instructional practice and grade level standards for special education referral. The International Reading Association lobbied for RTI, as an alternative to the discrepancy model and it is designed to identify students who are not progressing in general education in order to provide those students with rigorous, individualized instruction (Koutsoftas, Harmon, & Gray, 2009). RTI is multi-tiered with levels of instruction based on student's needs. The level of instruction increases in frequency; intensity and duration as a student moves from each tier (see Figure 4).

Figure 4-Tier System for RTI



Any form of RTI must include evaluations to monitor student's progress and to identify potential candidates for tiers of intervention (Haager, 2007). When the removal

of a student from general education due to low performance on an assessment occurs, he receives instructional interventions, such as, RTI. If he does not respond to the intervention during the RTI process, there is a possibility that he is not progressing in general education because he is learning-disabled. As previously stated, there is some ambiguity between what determines a slow reader in comparison to a learning-disabled child (Reid et al., 1997). If the student responds to an intervention, he may still be categorized as a "slow reader" because of low performance on a given assessment, and the difference between whether the student is identified as a "slow reader" or "learning disabled" is contingent upon whether the student responds to the intervention.

The data from a response to intervention is only one piece of information in determining whether a learning disability is present. Other indications that a student is learning disabled, includes a point when a student's performance does not meet grade-level standards when receiving appropriate instruction and research based interventions (Boyle, 2008). The term "appropriate" refers to instruction in the classroom that is on the student's level, "research-based" refers to interventions that have proven positive results through studies.

Special education referral occurs when students do not respond to Tier 2. (Rinaldi, C., & Samson, J., 2000). Students that perform poorly on state assessments and show improvement after an intervention may continue to be monitored in small group settings until they pass the assessment (Boyle, 2008) in some states. Despite the placement of a child in special education, after Tier 3 in the RTI process, rigorous and relevant academic opportunities should continue. The implementation of scientifically based measures that reliably predict long-term reading success, include increasing word

analysis skills, alphabetic principle, automaticity, and phonological awareness (Burke et al., 2009; Boyle, 2008). The use of RTI to identify children with learning disabilities is designed to identify struggling readers and identify specific challenges early, avoiding a possible wait to be tested into a Special Education Program, which is one of the possible benefits of RTI (Haager, 2007).

Another benefit of RTI may be that it will narrow the achievement gap between ELLs and non-ELLs (Haager, 2007) by decreasing the impact of a learning disability if identified early. Haager contended that literacy rates will improve, as well as gaps in achievement as all students benefit from RTI, not just those students with needs that require special education services.

RTI for ELLs. Any form of RTI must include evaluations to monitor students' progress and to identify potential candidates for tiers of intervention (Haager, 2007), but while the predictive value in these assessments is beneficial, it is imperative not to over rely on the data which may lead to students not being able to rotate into and out of a program. False positives are an issue because the screening tools in Tier 1 are universal, therefore; there is an even greater concern when assessments designed for native English speakers are used with identifying ELLS. With the use of RTI, if there is a false positive (the student appears to be performing below grade level but is actually performing adequately), then Tier 2, with progress monitoring, should show that there is not a significant learning challenge (see Figure 4). Curriculum based measures (CBMs) are used for progress monitoring and screening. Screening is a way of identifying students with reading challenges, and progress monitoring occurs so that responsiveness is measured. This way, the assessor is aware of whether the intervention is effective based

on the goals for the child. Valid, accurate assessments are a concern in RTI as they are in other areas of ELL assessment (Liu et al., 2008; Solano-Flores, 2006; Wagner et al, 2005).

Haager (2007) stated that there are still high criteria on ELLs due to a large non-ELL population; federal guidelines are the same for ELL-LD children as they are for ELLs and monolinguals. Assessments in either English or the native language fail to give a complete profile of the child (Wagner, Francis, & Morris, 2005; McCardle, Mele-McCarthy, & Leos, 2005). If the educator suspects a disability, RTI must be carried out in the native language, and educators should expect similar errors in their English if there is a disability (MacSwan & Rolstad, 2006). Special Education referrals occur after Tier 2 but it is not clear what is considered nonresponsive for ELLs (Rinaldi & Sampson, 2000).

McCardle's group (2005) posed the question, would an ELL with a reading disability respond differently than an ELL student who is not learning because of language differences or instruction that is lacking (McCardle, Mele-McCarthy, & Leos, 2005)? Nonresponsiveness may be due to mutism (Etizalde-Utnick, 2008) or the silent stage that some immigrant children experience as part of the transition into a new culture (Igoa, 1996). Another possibility is that a student may not comprehend the task in English depending on his oral language proficiency (Wagner, Francis, & Morris, 2005). These are all intrinsic factors that relate to the child. Educators should not assume that nonresponsiveness is due to a factor associated with the child, rather than the child's environment, like language differences and culture. Wagner, Francis, and Morris (2005) maintained that children who fail to respond may not be provided the appropriate instructional context. They further explained that if a student received native language

instruction and has decoding skills and phonological skills in his native language, then English language acquisition issues might be due to instruction quality. Conversely, if a student received native language instruction, and does not have literacy skills (i.e. decoding, and phonology), and he received prior native language instruction received but has not acquired literacy skills in his native language, than there may be a phonological deficit, thus an internal factor.

Ovando, Combs, and Collier, 2006 (as cited in Etizalde-Utnick, 2008) maintained that if most students are not progressing in the class, then the challenge may lie in external factors, and the child should not be referred to Special Education. Klingner and Harry (2006) documented a lack of external factors, such as classroom observations, in their study, which included more than 20 special education referral meetings. Students receiving inadequate instruction, or being inaccurately identified would exacerbate an achievement gap, as students may not have the opportunity to reach their full potential. Wilkinson and colleagues (2006) placed students in three groups when they analyzed students' profiles in Texas (Wilkinson et al., 2006). Type 1 problems, which were academic problems from inadequate teaching and learning environments (i.e. proper instruction like bilingual education or ESL). Type 2 problems, which were instances where instruction was not modified to address student's needs (i.e. students who were not at grade level and not receiving support). Type 3 problems, which were students who received specialized instruction due to disabilities that cannot be met by general education. The study by Wilkinson and her colleagues is one of the few studies that revisits cases of students who are identified as ELL-LD and re-evaluates them for accuracy. Out of the 19 students identified in special education for that grade, 4

were actually agreed on by the researchers (two former special education practitioners and a psychologist) who were actually ELL-LD. The authors maintain that educators who lead referral teams (MDT) must be able to differentiate and have evidence of internal factors, like Type 3 in the Wilkinson study.

Poor or inadequate instruction is an external factor that is a reoccurring challenge in each section of this research, (TESOL, 2010; Klingner & Harry, 2006; Wilkinson, et al., 2006; Wagner, Francis, & Morris, 2005). In order to assist with accurate LD identification that is not related to poor instruction, Klingner and Bianco (2006) suggested that the RTI process include a problem-solving team after Tier 2. This team should consist of an individual that is knowledgeable about language issues and can offer advice on interpretation of standardized test scores. Without a knowledgeable team, decisions are made to diagnose children with LD due to lack of a competing explanation for the behavior (Wilkinson et al., 2006). Other researchers suggest that exploring a child's literacy past that might explain some of the observed behaviors that are not relevant to LD (Abrams, Ferguson, & Laud, 2001). For instance, exploring the educational pasts of ELL students who exhibited abnormal behavior or academic performance that resulted in testing for LD showed the following: interrupted schooling (Abrams, Ferguson, & Laud, 2001), lack of prior native language instruction (Wilkinson et al., 2006 & Wagner et al., 2005), and cultural differences in home teaching style in comparison to the school's (Abrams, Ferguson, & Laud, 2001). Liu and colleagues (2008) posited that if a student scored low on a native language assessment, when there is no interrupted schooling, and excessive absences, then the educator could start making a case for a possible learning disability.

In addition to academic and instructional factors, there are life factors that should be assessed. Case studies in the literature reveal the following factors after evaluating students who were identified as LD prematurely: head trauma (Wilkinson et al., 2006; Abrams, Ferguson, & Laud, 2001), problems at birth like microcephaly (Wilkinson et al., 2006), losing a primary caretaker multiple times, and victims of war (Abrams, Ferguson, & Laud, 2001). Students who experience these types of life events may be diagnosed inaccurately if each child is not evaluated thoroughly (Wilkinson et al., 2006; Abrams, Ferguson, & Laud, 2001). In the Abrams, Ferguson, and Laud (2001) case studies, students suffering from tragedies and significant life events received counseling and were eventually mainstreamed. According to Liu's team, if there are no significant life events, the assessor(s) can consider relying solely on the assessment data (Liu et al., 2008).

Adolescent Readers. Life events were also a factor in Kaywell's research of adolescents (2009). Kaywell (2009) maintains that a conservative estimate is that one fourth of secondary school students can be categorized as a struggling reader because they are victims of poverty, abuse, bullying, homelessness, or divorce (p. 144*).* Mikulecky (1978) (as cited in Kaywell, 2009) used the term "aliteracy", for students who can read and do not; explaining that students are capable of reading, but due to tragedies and other factors, they do not engage in literacy. Beers (2003) labeled the adolescent reader as students who choose not to read, due to the fear of being wrong and speaking out in class. At this age, young adults are experiencing significant physical, cognitive, emotional and behavioral changes.

Older English learners may need explicit instruction that differs from their native language, learning to read and write in their native language, may not always be possible. English learners whose first language is nonalphabetic (i.e. Mandarin) will need to learn alphabetic sound-symbol systems in order to read, speak and write English (Echevarria et al., 2009). Thus, the 8th grade first year ESOL student does not need to learn how to read or write, just to learn verbal English. However, if the student has experienced an interruption in schooling, he will need to be immersed in print rich environments. It is still necessary to comprehend what is known in a child's native language.

Identification. Roseberry-McKibbin and O'Hanlon (2005) suggested nonverbal tests as assessment data during the process of identifying ELLs with LD. They suggested process-dependent tasks. Process-dependent tasks are not content dependent nor content specific and are based on cognitive processes like memory that are typical of a monolingual LD child. These tasks are highly recommended in the research (Oh et al. & Windmueller in Haager, 2007, p. 25; McCardle et al., 2005; Roseberry-McKibbin & O'Hanlon, 2005). Using nonverbal and process-dependent assessments is a way for students to be assessed without manipulating a language; the assessment minimizes the language barrier. Non-verbal behaviors that are typical for monolinguals, or that are nonverbal indicators are: a lack of organization, lack of focus, inability to work independently (Wilkinson et al, 2005), memory, abstract reasoning, concentration (Abrams, Ferguson, & Laud, 2001) and a short attention span (Liu et al., 2008).

The literature regarding ELLs with LD revealed several suggestions of bridging a cultural gap, and a few articles specifically documented the achievement gap between ELLs and non-ELLs (Haager, 2007). Attempts were being made to close the gap by

accurately identifying ELLs and ELLs with LD. The researchers continued to suggest caution when referring ELL children to special education, not wanting to over-rely on language differences and thus over-identify the child (Haager, 2007; Ferguson, & Laud, 2001).

There was limited research on ELL-LD and ELL children with respect to race, except in the description of the samples used in the studies. Previous scholarship also failed to aggregate and disaggregate ELL, ELL-LD, and LD data by socioeconomic status, race/ethnicity and disability; one of the justifications for a quantitative study that evaluates these populations. The next section will describe the fourth disadvantaged subgroup - racial minority; it will illuminate the role of race in the achievement gap, as well as perceptions that influence student performance, and therefore widen academic gaps. The next section also contains studies that reveal race related challenges with identification, stereotypes, and instruction.

Racial Minority

Over-identification. The learning-disabled category contains more Black and Hispanic students than any other racial group (Harry & Anderson, 2004). In Maryland, the students enrolled in Special Education classes parallel the national trend (Maryland Task Force, 2006). For Black children, Maryland's general education data and special education data by category showed possible subjectivity and disproportion. In the disability categories where a medical diagnosis is required, all ethnic groups and gender

groups were proportional to the general education population; but in the category of learning disabled, they were not (Maryland Task Force, 2006).

There are various formulas used to define and describe disproportion (Artiles, et al., 2010). One example is Chinn and Hughes' formula (as cited in Artiles, et al, 2010; Harry & Anderson, 1994). These researchers define disproportion as plus or minus ten percent of what would be expected based on the school-age population using a composition index. The National Center for Education Statistics reported that six million students, ages six to twenty-one received special education services in the United States in 2004, this equals approximately 9% of the total population in this age group (NCES, 2004). In 2004, there were 12,182,975 Hispanic children in the United States. Nine percent of this total is 1,096,468. Using Chinn and Hughes' formula, proportionate numbers range from 986,821 to 1,206,113 (plus or minus ten percent). However 1,297,000 Hispanic children received Special Education services in 2004, which equates to 91,000 more children enrolled in Special Education than expected (Harry & Anderson, 2004; NCES, 2004). This number is well over the national average for special education identification. Using this same method equates to fourteen percent of Native American children (91,000), thirteen percent of Black children (1,252,218), nine percent of White American children (3,589,926), eight percent of Latino American children (974,638), and five percent of Black children (125,325) received special education services. With nine percent representing the national average, Native Americans and Black children have the largest proportion of identified children in Special Education (NCES, 2004); suggesting a need to examine the data for evidence of over-identification. Other groups may be examined as well since national average data will not always reveal over-identification,

since racial minority children and linguistic minority children are heavily populated in large cities (Artiles & Klingner, 2006).

Herrera (1998) researched the ten largest cities in the U.S. to evaluate the over identification of Black males. Her prediction was that the studies with the largest number of black teachers would have the lowest percentage of African-American males in Special Education; and conversely the districts with the largest number of white teachers would have the largest percentage of African-American males in Special education. Herrera's assumption was correct. The cities with the highest number of black teachers had the lowest number of Special Education students (Atlanta, GA; and Washington, DC). The intermediate numbers contained intermediate numbers of Special Education students (Cleveland, OH; Miami, FL; Chicago, IL; Houston, TX and Detroit, MI); and the districts with the lowest number of black teachers had the highest number of students in Special Education (New York, NY; Milwaukee, WI, and San Diego, CA). From this study, one can make inferences about the influence of teacher perspective, possible cultural overlaps, and cultural differences between teacher and students in large school districts (Herrera, 1998). As the student population becomes increasingly diverse; cultural sensitivity and cultural competence (Ladson-Billings, 2001) is necessary for accurate program referrals (Klingner & Harry, 2006), so that adequate instruction can occur and narrow the racial gaps in achievement.

In *Growing Up Literate* (Taylor & Dorsey-Gaines, 1988), there was a constant theme of failure for the students in this 5 year ethnographic study, as parents explained how smart and talented their children were. Still, they were placed in Special Education. There was evidence of student work that demonstrated literacy in different ways than

what was expected at school. These cultural differences between home knowledge and school knowledge, and racial differences between teachers, students, and parents; are similar to the Fradd & Correa (1989) study in the previous section, where parents assumed students were meeting school criteria with their use of BICS, when in fact they needed CALP. That is not to conclude that culture is salient to race, nor does it guarantee cultural competence and cultural sensitivity by teachers and students who are the same race (Klingner & Harry; 2006; Solano-Flores, 2006; Au, 1998).

Stereotypes. Klingner and Harry (2006) documented their astonishment in their observations of special education referral meetings, where ethnic minority personnel made racially stereotyped comments about ethnic minority families. In a different study evaluating stereotypes of minority children, McKown and Weinstein (2008) used a regression analysis to evaluate the predictive relationship between child ethnicity (independent variable) and teacher expectation (dependent variable). The study included two independent data sets with 1,872 children, attempting to increase the ability to make generalizations about how teacher expectation influences children of color and their achievement. The teacher expectations of mathematics were .07, .19, and .36 standard deviations higher for White and Asian children than for Black and Latino children.

Similarly, Elhoweris, Mutua, Alsheikh, and Holloway (2005) analyzed the effect of students' ethnicity on teachers' educational decision-making, using a stratified cluster sample of 207 elementary school teachers from a large Midwestern city. Participants were randomly assigned to one of three treatment conditions. The instrument was a short vignette describing research-based characteristics of a gifted child. The vignettes contained the same content; with the exception of race. One third of the teachers read a

vignette describing a White student, another thirty-three percent read one describing a Black student, and the last group served as the control, receiving no information regarding race or ethnicity. The between-subjects MANOVA results showed a significant effect for the student's ethnicity; $p \leq .05$; that is, the child's ethnicity did make a difference for the teacher's referral decision, even though all academic profiles were the same. This study by Elhoweris et al. (2005) is another example of ethnic discrimination by a teacher that impairs the placement or progress of a child. These cases indicate that perception is affecting student performance and therefore their achievement (Ferguson, 2010; Weinstein, 2002; Baron, Tom & Cooper, 1985).

In a study conducted by Bae, Holloway, Li, and Bempechat (2008), six high achieving Mexican American students and five low achieving Mexican American students were interviewed to determine whether teachers' perceptions had a significant effect on their achievement. Their findings indicate that students are a) highly aware of teachers' perceptions, and b) teachers' perceptions influenced the ways in which they grouped and communicated with students (e.g. providing feedback). This treatment, in turn, was observed by the students and affected their motivation within the class. The majority of participants in the study, both teachers and students, deemed individuals who conformed to social norms as "good students." Reyna (2008) maintained that negative views result in lower expectations due to perceptions about minority groups. She also posited that even if the stereotyped person does not fit the perception, he constantly fights the description of the larger group, and eventually the stereotype may impair the child's achievement (Ferguson, 2010; McKown & Weinstein, 2008). Closing the existing achievement gap will contribute to data and research that counters the aforementioned

stereotypes, rather than statistics that align with these perceptions.

Model Minority. Similar studies took place based on teacher perceptions of Asian students (Endo, 2009). Teachers reported more positive attributes for Asian students than for Black and Latino students. In the late 20th century, Asian Americans were excluded from the research that relates to children of color, largely because of high achievement levels. Indeed researchers refer to Asian Americans as the "model minority"

According to Reyna (2008), most Asian students are perceived as "brainy, conscientious, and successful" (p. 42). Statistics indicate that this perception has propelled these students forward (Brydolf, 2009). For instance, in California, Asians make up only 12% of the population; however, they have the highest K-12 test scores, highest graduation rate; and make up 40% of the populations of University of California at Los Angeles and Berkeley, the most elite California schools. This data reflects the national statistics for Asian American student achievement (Brydolf, 2009; Wang, 2008). Asian students score equal to White students on assessments by many standards, and in some cases score higher (NAEP, 2009; Wang, 2008).

Pang, Han, and Pang (2011) researched 7th grade Asian American and Pacific Islander students in California. One of their research questions was how race relates to student achievement among 7th grade Chinese American, Samoan American and White American students on the California Achievement Test (CAT/6) when gender, parent education level and economic status are controlled. Pang and colleagues also researched how 14 racial groups performed compared to each other. A four-way ANOVA was employed to test for academic performance differences (ethnicity, 14 groups), (gender, 2

groups), (lunch program status, 2 groups) and (parent education status, 5 groups). For Chinese students n=54,330, for Samoan students n=3,505 and for White students n=752,729. For Chinese students (M=62.86, SD=20.07), Samoan students (M=41.42, SD=18.88), and for White students (M=58.14, SD=20.29). In reading, White American seventh graders scored significantly higher than nine of the Asian or Pacific Islander groups (i.e., Vietnamese, Other Asian Americans, Filipino, Guamanian, Native Hawaiians, Other Pacific Islander Americans, Cambodian Americans, Lao Americans, and Samoan Americans) in order of highest to lowest. Compared to White American children, Asian Indian children did not significantly differ on the assessment, Japanese American students scored the highest (M=63.04, SD=19.15), followed by Chinese American students (M=62.86, SD=20.07) and Korean American students (M=61.2, SD=19.23).

This study is significant because it describes how Asian American and Pacific Islander groups perform in comparison to each other, indicating that this is not a monocultural group as some data sets imply by labeling all Asian American groups as over-achieving. The Model Minority myth may play a role in the groups with the highest scores; the study does not show other racial groups in order to make generalizations about how the other ethnic groups that identify as either Asian or Pacific Islander rank on the CAT/6 test.

The term “model minority” was first used in 1966 to describe Japanese Americans in the *New York Times Magazine* (Pang, Han, & Pang, 2011). Pang, Han, and Pang (2011) argue that Asian American and Pacific Islanders should not be viewed as a monocultural group, and explain that the term has resulted in schools overlooking the

educational needs of this population. Therefore, the Model Minority perspective is not always beneficial to students (Brydolf, 2009). A false perception or stereotype that a student will over-perform or does not need specialized instruction is also detrimental. A student receiving inadequate support based on a misunderstanding, or cultural incongruence is a tenet of this study and was previously documented (Herrera, 1998; Taylor & Dorsey-Gaines, 1988). Pang, Han, and Pang (2011) further maintain that the model minority myth enforces a perspective that the U.S. is a colorblind society and success is possible regardless of race. Blaisdell (2005) maintains that teachers may perceive themselves as colorblind, but inadvertently assign a standard behavior, known as "whiteness" to students.

Standardized Assessments. As indicated by Bae et al., (2008) and Reyna (2008), teacher perceptions directly relate to student performance. In both studies, teachers unknowingly assigned "whiteness" as a standard synonymous with "good behavior" and "Standard English" to their students, which emphasize their expectations (Reyna, 2008; Bae et al., 2008; Blaisdell, 2005). Whiteness references those who speak Standard English, often associated with "speaking White" and behaving in ways that are aligned with mainstream conceptions of appropriate behavior and decorum. Teachers assume that students who exude those mainstream ways of speaking and behaving are smarter, and well mannered, as explained by the participants in the research by Bae et al., (2008). Conversely, students who speak accented English (DeJesus, 2008) or do not code switch (Ladson-Billings, 2001; Gee, 1989) are perceived as less intelligent. MacSwan and Rolstad (2006) referenced the LAS-O Spanish test in the previous section where a student received more points for giving an answer that showed he spoke Standard Spanish, and in

DeJesus (2008) the students in Puerto Rico were attempting to speak "unaccented English" and "unaccented Spanish", showing how standards are applied across languages and races. Standards are also applied to rating scales that are used to measure student behavior.

In terms of a standard behavior, a team of psychologists (Reid, DuPaul, Power, Anastopoulus, Rogers-Adkisson, Noll, & Riccio, 1997) study behavior scales and question the validity of the assessments used for a commonly diagnosed disability for minorities, Attention Deficit Hyperactivity Disorder (ADHD). The purpose of the study was to explore the cross-cultural equivalence of the ADHD-Rating Scale IV, across White and Black male students. Participating teachers were largely female (83%) and White (92.4%). The instruments most widely used in the assessment of ADHD derived from the perspectives of Western concepts of disorder and measurement, with little regard for cultural differences (i.e. race, gender). The researchers found that if norms for White children were used for Black children, approximately twice the number of Black students would screen positive for ADHD. This is particularly challenging as classrooms become increasingly diverse and assessments should be used that are normed on a random sample of students of different races and ethnicities.

Degrees of Whiteness. Using whiteness as the standard is an example of cultural and racial issues that are intangible (Harris, 2008). "Standard'' often is a code word for white, middle class, male, heterosexual discourse (Gee, 1989). According to Reeves (2008), society should be wary of terms that mask power and social benefits for groups of people, and the term "'standard' is a "biased term used as a neutral one" (p. 86). Much of the research on the achievement gap uses White children as the standard, and compares

Whites to Blacks (Barton & Coley, 2010; Lee, 1993). Lee (1993) described the initial race categories within the United States Census where citizens identified themselves in degrees of whiteness; specifically, octoroon, quadroon, or white. At the time, other ethnic groups were completely omitted from census data, and Latinos were the last minority group to be added (U.S. Census, 1970). The National Center for Education Statistics did not include Latino children until 1975 (http://nces.ed.gov/programs/digest/d10/tables/dt10_027.asp?referrer=list), and having to choose an ethnicity on a white continuum is another example that whiteness was the standard in the United States; even for groups of people who were phenotypically not white. For instance, Mexican Americans were legally classified as "white" in the Treaty of Guadalupe Hidalgo (Menchaca, 2001), and Blacks who were mixed race, in some instances could pass as "white," and lived under that racial category, which was more advantageous in terms of educational and financial opportunity (Barton & Coley, 2010; Banks & Banks, 2006). Currently, the U.S. Census race categories are: Black or African American, White, Asian, Native Hawaiian or Other Pacific Islander, and American Indian or Alaskan Native, Two or More Races, Some other Race (U.S. Census, 2010). The ethnicity categories are: Hispanic or Latino, Not Hispanic or Latino.

According to Herman (2009), multi-racial and bi-racial students who identify as White receive better grades than those who identify as Black or Hispanic (Herman, 2009). The grade point average (GPA) for students who identify as black ($m=2.54$) is .29 units lower than for those who identify as white ($m=2.82$; $p<.05$) and .42 lower than those who identify as Asian ($m=2.96$; $p<.01$). Hispanic children also have grades that were statistically lower ($m=2.56$; $p<.01$). Hispanic students and Black students did not

have lower grades that were significantly different; but both groups had lower GPAs than White and Asian students. Most of the students in this study with some black ancestry, identified as black, and black identification linked to lower grades.

The literature on the role of race in the achievement gap reveals challenges with whiteness as the standard in the same way that the researchers in the role of language section challenge English as the standard.

Racial Gaps. There is an argument to provide a counter narrative to improve the self- perception and the story of failure or low performance by minority students who identify as Black or Latino, in comparison to minority students who identify as Asian. In a study of self-perceptions by Wong, Lai, Nagasawa, and Lin (1998) Asian American students felt more prepared, thought that they were more motivated, and that they would have a more successful career than White American students. The survey took place at a large university, where 704 interviews were completed. Out of 704 respondents; 119 respondents were Asian American, 125 were Black American, 143 were of Hispanic origin, and 126 were Native Americans. Based on their responses in the three categories; academic performance, motivation to do well in college, and future career success, the Asian American, Black American and Hispanic American participants documented that they felt inferior to both Asian Americans and White Americans. This survey is one indication of the impact of self-perception. Coincidentally, the scores of the three race groups (i.e. Black, Hispanic, and Native American) in this survey are consistently lower than the other two race groups (i.e. Asian, White) (NAEP, 2009).

Wang (2008) used the latest Early Childhood Longitudinal Study (ECLS) data set

and found statistically significant differences between four year-old Black and Latino children in comparison to four year-old White and Asian children. With a sample of 8,750, she measured overall mathematics knowledge and skills, literacy knowledge and skills, two sub-measures of language knowledge and skills, and two sub-measures of early reading knowledge and skills. Wang learned that an achievement gap occurs prior to kindergarten, with the largest gap existing between Latino children and White children. Other researchers also contend that there is a gap in the early grades (Lee & Burkham, 2003). The difference in performance between Latino and White four year-olds existed in mathematics knowledge and language knowledge. The data showed that Asian children performed better than White children on measures of literacy knowledge. In early reading knowledge, Black children and Latino children performed just under 1/2 standard deviation lower than Asian children, and White children performed 1/3 standard deviation lower than Asian children. Asian children outperformed White children on literacy knowledge, but not language knowledge, prompting researchers to consider investigating the amount of language knowledge necessary, in order to score successfully on standardized assessments (See Table 3).

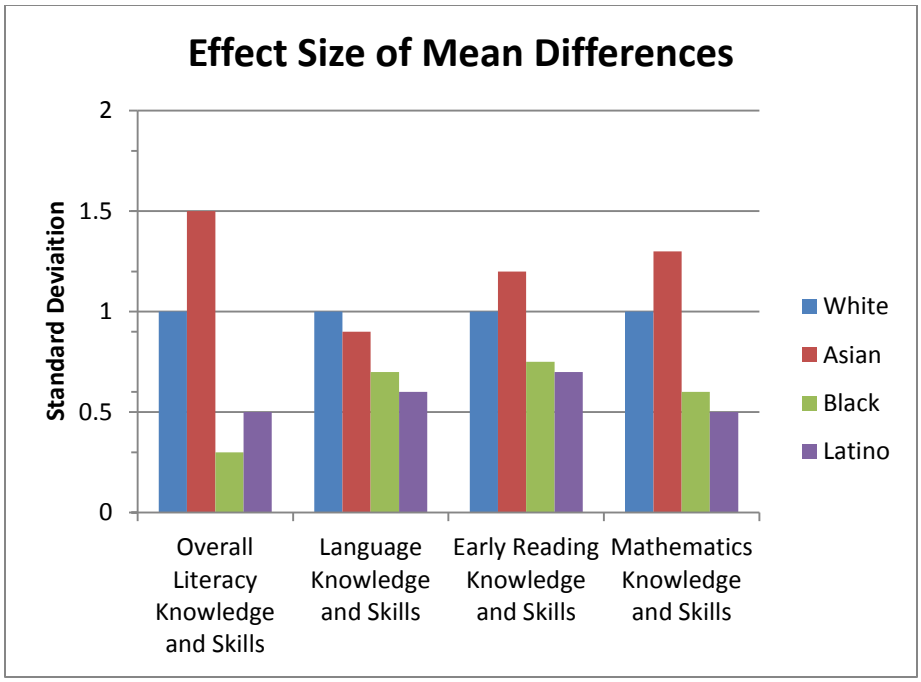


Table 3-Mean Difference of Literacy and Mathematics Skills of 4-year olds

Source-Prepared from data in Table 2 of Wang (2008)

Lawrence-Lightfoot (2009) contends, that the performance gap will grow larger if minority children mirror the societal images that present them as deviant because they are different (presentation, March 7, 2009). Perry (2003) insists that teachers should attempt to counter this dominant social narrative by building intentional classroom communities that demonstrate to Black and Latino children that they are capable of learning.

Tracking. Rigorous academic opportunities should also be made available to every child (Burris & Garrity, 2009; Delpit, 2005) to minimize an achievement gap and maximize student achievement. Having large groups of students in remedial courses does not provide the same opportunity as having large groups of students in college preparatory courses (Artiles, et al., 2010; Blaisdell, 2005; Elhoweris et al., 2005; Reid et

al., 1997). These fast-tracked courses not only prepare youth for secondary and higher education but also for standardized tests. While Asian and White students occupy the majority of the seats in Advanced Placement courses, Black and Latino students are being ill prepared in lower tracked classes (Artiles, et al., 2011; American College Board, 2008). Taliaferro and DeCuir-Gumby (2008) described what they referred to as the "opportunity gap" in AP courses. Out of the 37 exams across 22 content areas only 6.4% of Blacks in the United States took the exam (American College Board, 2008). If the placement of minority students in lower tracked courses continues, so will the increase in the number of students of color who underperform in comparison to students who have the opportunity for challenging coursework, and the achievement gap will continue.

Burris and Garrity (2009) researched a school district that aimed to close the achievement gap by offering students of color the same curriculum as other children. Administrators in the district determined that tracking was creating a meritocracy, and while the system appeared to be equitable, it was in fact privileging the dominant groups and excluding minority groups (Blaisdell, 2000). The New York Rockville Centre district made an effort to change their practices (Burris & Garrity, 2009). The district discovered that most of their White and Asian students heavily populated upper level courses, and Black and Latino students heavily populated Special Education and ESL. Specifically they found that due to teacher referrals, few minority children enrolled in the district's International Baccalaureate (IB) program. In response, the district detracked students who had been tracked into lower classes, and provided an equitable educational opportunity for all of their students. By 2009, the gap between Black, White and Latino students achieving a Regents diploma, that is a diploma for high-achieving students, had almost

vanished. More than half of the Black and Latino students were enrolled in IB courses, and in 2009, one third of all Black and Latino students in the district were candidates for an IB diploma.

Successful detracking models are such as Rockville Centre schools are noteworthy, as school systems across the country track students into advanced and below grade level programs. As such, only 30 percent of secondary students read proficiently; however, for students of color the percentage is lower. Eighty-nine percent of Hispanic students and eighty-six percent of Black middle and high school students read below grade level as Perie, Grigg, and Donahue describe in the NAEP 2005 report (http://nces.ed.gov/nationsreportcard/pdf/main2005/2006451.pdf). Students who are not in these racial groups continue to excel, and students who are not identified as SWD or ELL also show improvement (NAEP, 2009). Therefore, students who are identified as ELL, or in SE, and in the upper grades are at the greatest risk of failure.

The impact of a challenging curriculum on overall student performance is evident, and relates directly to the achievement gap. Students preparing for rigorous exams like Advanced Placement or the English IB exam are more prepared for state and national assessments (Burris & Garrity, 2009), as they are receiving proper instruction, and suitable preparation. As previously stated, the appropriate accommodations, and instructional setting for the ELL-LD child is undocumented. Many of the studies reviewed for ELL-LD students highlighted primarily Hispanic Americans (Liu et al., 2008; Maldonado-Colon, 1995; Fradd & Corea, 1989), while others included Black students (Solano-Flores, 2006; Klingner & Harry, 2006; Abrams, Ferguson, & Laud, 2001). These studies predominantly highlight the primary grades, leaving the literature on

ELL-SE students at the secondary level inadequate.

Limits in Prior Scholarship

Race. The literature with respect to race contained several studies that described the impact of expectations on student achievement (Bae et al., 2008; Reyna, 2008, Perry, 2003). Some of the examples also showed the association between low student achievement and poor curricular resources (Burris & Garrity, 2009). These contextual issues are factors that would contribute to an achievement gap between ELL-LD children of different races. The literature gave suggestions for improving achievement for Black and Latino children, but the research on cultural congruence did not include White children, nor were examples given on what types of curricular choices would benefit this population when they perform poorly. There were also limited examples of how to meet the instructional needs of Asian children who do not perform well. Perhaps the challenges for these groups of children (i.e. Asian children and White children) are not highly correlated with race, since the literature shows that, their overall teacher expectation levels are higher than other groups (Elhoweris et al., 2005).

Racial differences as challenges for the LD child were well documented, and challenges associated with students and teachers with different cultural backgrounds contributed to learning gaps, according to the research (Herrera, 1998; Taylor & Dorsey-Gaines, 1988). The studies on the ELL child who is Black, Latino, White or Asian highlighted the language difficulties that students experience (Solano-Flores, 2006; MacSwan & Rolstad, 2006; Igoa, 1996). Similarly, the studies on ELL-LD children

emphasized language and disability, rather than race (Etizalde-Utnick, 2008; Wagner, Francis, & Morris, 2005; Rinaldi & Sampson, 2000), leaving the performance of children who are identified as ELL-LD across racial groups either limited or unknown.

Disability. The research was also scant on proven strategies for an ELL-LD child who tests out of ESL. Exiting ESL is a goal for the ESL child, based on the literature, though the time frame for exiting is inconsistent (Klingner & Harry, 2006; Lesaux, 2006; Abrams, Ferguson, & Laud, 2001). This could be problematic for students, considering the ambiguity that already exists on the definition and process for determining both an ELL child and an LD child. The literature did not suggest that an ELL-LD child tests out of special education, even when properly diagnosed; Special Education seems to be a long-term placement (Klingner & Harry, 2006). One researcher cited the concern of an ELL-LD child being misdiagnosed and not being able to test out of a Special Education program (Haager, 2007). This is particularly troubling for districts that continue to use the discrepancy approach, since there are issues with the validity of assessments (Abedi, 2006), a possibility of cases of overrepresentation (Artiles & Klingner, 2006), and a lack of consensus on the appropriate language of the assessment (Spinelli, 2008; Haager, 2007; MacSwan & Rolstad, 2006).

Language. The role of language was central to ELL and ELL-LD research. Most of the language difficulties highlighted students eligible for an ESL setting, prompting the researcher to inquire whether similar instructional consideration could exist for students whose home language is English, but not Standard English. It is possible that additional literature on school-aged children learning new academic languages exists in other languages; this study only examined articles written in English. Nontraditional

assessments for the ELL child who was diagnosed as also having a learning disability were well documented and consistent (i.e. process dependent tasks) (Roseberry-McKibbin & O'Hanlon, 2005), but literature that verifies high-stakes assessments that are valid for ELLs and ELLs with LD, is still incomplete.

The research overwhelmingly documented ELL children who are tested for LD, though. there was no indication that a student who was LD tested into ESL. This suggests that students who are American born or speak a world variety of English, could be ELL-LD students who are not properly diagnosed. This is possible if the state's Home Language Survey inquires whether the student is born outside the U.S., in which case the answer would be that the student is U.S. born. There was no evidence that proposed the bridging of the language gap between dialects, or socioeconomic communities, only that language should be valued and that dialect should be considered. Issues with how to assess ELLs with LD if in fact there are linguistic misalignments as Solano-Flores (2006) advised, remain unsolved as researchers offer different solutions.

Most of the research on ELL, ELL-LD and LD children with respect to language suggests cultural alignments, and that can happen with appropriate resources. Cultural differences were noted in the literature, and there was extreme caution (Haager, 2007) and several explanations for nonresponsiviness of ELLs during RTI (Etizalde-Utnick, 2008; Abrams, Ferguson, & Laud, 2001; Igoa, 1996). This caution did not occur in the literature where racial minority children who were not ELLs were being identified for Special Education or for LD.

Economically Disadvantaged. Socioeconomic status appeared as a factor in the achievement gap literature (Coutinho, Oswald, & Best, 2001), and materialized with the aforementioned "language of the poor" (MacSwan & Rolstad, 2006), and the "economic gap" (Jencks & Phillips, 1998). Children in lower socioeconomic groups do not perform as well as children in higher socioeconomic groups - this is found within the General Education population (NAEP, 2009). The socioeconomic literature was coupled with race and language, and there were some instances of research that highlighted children living in poverty and their placement in special education. The research did not make reference to ELL, ELL-LD or LD, or how they perform depending on their socioeconomic status, prompting the researcher to investigate SES for these subgroups.

The performance of children who are identified as ELL-LD from various socioeconomic backgrounds is not known. If an achievement gap exists, statistical improvement to narrow the gaps, occurs by decreasing the number of students in the group who perform at the basic level (in comparison to proficient or advanced), and by reducing the observed gap in performance between the disadvantaged group and the non-disadvantaged group (Mosquin & Chromy, 2004). In order to make the improvement, it must be determined that an achievement gap exists.

Research Questions. The investigation of achievement gaps has led to the discovery of differences in performance that include racial groups other than the historical Black-White Achievement Gap (Barton & Coley, 2010), those groups are: Hawaiian/Pacific Islander, Asian and Latino (Pang, Han, & Pang, 2011; Wang, 2008). As the investigation

continued, the researcher examined the differences in performance on two standardized reading assessments. Through this examination, she investigated how ELL-LD, ELL, and LD students perform when compared to students in the same grade level, across seven different races, and different socioeconomic groups; as well as how they perform when compared to each other, which is a nontraditional way to investigate an achievement gap. This investigation of how 8th Grade ELL-LD students perform in comparison to their peers occurred by employing the following research questions:

1. Is there a gap in reading achievement among 8th grade ELL, ELL-LD, and SE students?
2. Is there a gap in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as ELL, ELL-LD, or SE?
3. Is there a gap in reading achievement between 8th grade ELL-LD students who are eligible for free and reduced meals and those who are not?

Chapter 3

Methodology

Research Design

Restatement of the Problem. There are now more than 400 languages spoken in the U.S. (Spinelli, 2008), and the 2009 National Association of Education Progress (NAEP) Digest of Education Statistics reports that children who are English Language Learners (ELLs) perform lower than children who are not. For instance, the average scale score on the NAEP Reading assessment for ELLs was 221, and the average scale score for non-ELLs was 268. For instance, according to the National Center for Education Statistics (2004), if school-aged children reported speaking English with difficulty in the 2000 U.S. Census, their likelihood of graduating from high school was 18 percent, whereas if they reported speaking English well, their likelihood of graduating rose to 51 percent. Haager (2007) found that over 50 percent of English Language Learners score in the bottom third in both reading and mathematics in comparison to their more linguistically proficient peers. Other researchers provide explanations for low ELL performance on standardized assessments, including challenges with the language of the test (Abedi, 2006; Artiles & Klingner, 2006; Solano-Flores, 2006; Roseberry-McKibbin & O'Hanlon, 2005), and invalid or inappropriate assessments (Liu, Ortiz, Wilkinson, Robertson, & Kushner, 2008; McCardle, Mele-McCarthy, & Leos, 2005). ELLs continue to perform lower than their English speaking peers (Echevarria, Vogt, & Short, 2009; Haager, 2007).

ELLs are one of the subgroups identified as "disadvantaged" by *The No Child Left Behind Act of 2001* (NCLB, 2001). The three other groups of children identified are: racial minority, economically disadvantaged, and disabled. In some cases these populations overlap and meet the criteria to belong to multiple subgroups, the ELL-SE group is an example. Although it is not uncommon for students to belong to more than one of the disadvantaged groups outlined by NCLB, ELLs in Special Education are not highlighted in national data sets (e.g. NCES 2008 long term trend assessments), making it difficult to support this growing population (http://nationsreportcard.gov/reading_2009/nat_g8.asp?subtab_id=Tab_1&tab_id=tab3#tabsContainer). In addition, national data does not show standardized test results of ELLs who belong to one of the other "disadvantaged" categories. What is revealed in national data, are test scores from language minority, race minority, economically disadvantaged, and disabled children that are consistently lower than those of their more advantaged peers (NAEP, 2009). These differences in performance are commonly described as the "achievement gap."

Subjects and Setting. The population for this study is 8th grade ELL-LD, ELL and SE students in the Mid-Atlantic region of the United States. From this population, one school district was selected as the sample. A large school district was selected because of past research that indicates ELLs and minority children are highly represented in large cities (Artiles & Klingner, 2006). The participating district contains over 200,000 children, and there are 9,150 enrolled in eighth grade. Eighth grade children are the subjects in this study, because eighth grade is a NAEP assessment grade, a statewide assessment grade, and because children who are ELL, ELL-LD, and LD are over-

represented at the secondary level (NCES, 2009; Artiles & Klingner, 2006).

Variables/Definitions. The independent variables for the study, are instructional subgroup, race/ethnicity, and socioeconomic status. The instructional subgroups are: ELL, SE, and ELL-SE, the race/ethnicity variables are: Black, American Indian, Asian, Latino, Multiracial, and White; and the socioeconomic status variables are: FARMS or non-FARMS. The dependent variable is the reading score; one for the Scholastic Reading Inventory and the other is for the statewide assessment.

The data set reflects scores from a state that requires at least five students for a subgroup, therefore, $n \geq 5$ for the state to collect data on that subgroup. The subgroups that the state reports are race, gender, grade level, economically disadvantaged, ELL, and SWD. The operational definitions for each subgroup were formed from state guidelines and some state guidelines were formed from federal guidelines. Previously there were five race/ethnicity codes, however for the 2010-2011 school year there were seven race/ethnicity codes. The racial groups for the state: Latino, American Indian or Alaskan Native, Asian, Black, Native Hawaiian or Other Pacific Islander, White, Multiracial (http://www.mdreportcard.org/whatschanged/racecodes.aspx?K=99AAAA). These are the terms used throughout the study. For the economically disadvantaged subgroup, the state referred to FARMS eligibility. FARMS eligibility is based on guidelines set by the federal government (USDA, 2011), which refers to poverty guidelines for that year. For instance, for 2010-2011 the income for a family of four ≤ $22,350 (http://www.fns.usda.gov/cnd/governance/notices/iegs/iegs.htm).

For the ELL subgroup, the state referenced federal guidelines as well. An ELL child is defined by section 9101 (25) of Education and Secondary Education Act as: a) Age 3-21, b) Enrolled in an elementary or secondary school, c) Born outside of the United States, or speaks a native language other than English, and d) Has difficulty speaking, reading, writing or understanding the English language that is sufficient enough to deny the student the ability to perform at proficiency on state assessments (No Child Left Behind Act of 2001, S. 9101, 25, of Title IX; COMAR, 13A.05.07.02). The state refers to the IDEA (2004) guidelines for a child with a disability (http://mdk12.org/instruction/specialed/students_identified_for_se_services.html), descriptions are below.

LD identification and referral-The participating district is in a state where there are guidelines for special education identification. Children ages 3-21 are eligible, and a disability category, such as, LD does not align with a specific service for a student in special education; the educational service depends on the individual student (http://mdk12.org/instruction/specialed/students_identified_for_se_services.html). The referral process for the state consists of the following:

Step 1-Referral: For a referral for special education services, parents can make a request in writing to school staff, or school staff can recommend the child.

Step 2-Initial Evaluation Eligibility: The evaluation and assessments consist of state and local assessment data, and classroom observations to determine whether the child has a disability with an educational impact. Note: The state contends that

evaluations are: observations, student work, and standardized test results. There is an IEP Team, and along with the parent's consent, the group makes a decision.

Step 3-Eligibility: The IEP Team drafts an IEP if the child is deemed eligible. The team consists of: the parent of the student, at least one Special Educator, at least one General Educator, a school/system representative, the student (when appropriate), an individual who can interpret results, and other individuals at the discretion of the parent or LEA.

According to the State Department of Education, there is a Re-evaluation every three years (this can occur earlier at the request of a parent/guardian) to determine whether services should continue, as well as an Annual review of IEP goals by the IEP team. Dismissal can occur if it is determined that the student is no longer a child with a disability (http://www.marylandpublicschools.org/NR/rdonlyres/5F4F5041-02EE-4F3A-B495-5E4B3C850D3E/22211/UnderstandingtheIEP.pdf).

The state's Office of Special Education Guide/Early Intervention Services Guide states that: A child may not be identified as a student with a disability in need of special education and related services if the determinant factor is: a) A lack of appropriate instruction in reading; b) A lack of instruction in math; c) The child's limited English proficiency, unless the child otherwise qualifies as a child with a disability (MSDE, 2009, p. 7). In sum, ELLs in Special Education should not be identified as LD based on their ESOL status.

ESOL identification and Referral – According to state policy, every local district in the state must ask each child upon enrollment what language is spoken at home using a

Home Language Survey. The survey is to determine a) the language spoken at home; b) the language spoken by the student; c) the language spoken by the student outside of the school setting (COMAR, 13A.05.07.02). If a language other than English is noted, the child is tested. The student's placement in ESL is determined by their score on an English Language Test. A letter is given to parents 30 days after a child becomes eligible for ESL services. The letter is available in Amharic, Arabic, Chinese, English, Farsi, French, Hindi, Japanese, Korean, Portuguese, Russian, Spanish, Tagalog, Urdu, and Vietnamese (http://www.marylandpublicschools.org/MSDE/programs/title_III/pnl.htm).

Data Collection. The dataset was requested from the participating school district, and contained student test scores, instructional group, ethnicity and FARMS status. Verifiable information (e.g. first name, last name) was omitted from the dataset prior to receipt of the file. The file was received in Microsoft® Excel format. Each subgroup was assigned a code for data capture and analysis. The subgroups within the dataset were: SWD (students with disabilities), LEP (limited English proficiency), Race/Ethnicity (Black, Asian, Latino, American Indian, Multiracial, Hawaiian/Pacific Islander, White), and Grade level (8th). For the ELL-SE group, the data set included FARMS status (free and reduced meals), birth country and home language. The researcher compared students with a "Y" in both the SE and ELL category to the group identified as ELL-LD. Students who did not have data for all variables (i.e. both assessments) were not used in the study. For instance, there were two students who were in the ELL-SE category that were not identified as ELL-LD; those students did not take both assessments, and were omitted from the analysis as a result. This process also eliminated a White student from the ELL-LD population, and a Hawaiian/Pacific Islander student from the ELL population,

excluding both races from the analysis for those instructional groups. The data was from SY 11 and was input into Statistical Package for the Social Sciences (SPSS) version 20.

Out of 362 eighth grade ELLs, 248 took the statewide test, and 345 took the Scholastic Reading Inventory in May of 2011, one month after the statewide exam. Out of 34 ELL-LD children, 33 took the statewide exam and 31 took the Scholastic Reading Inventory, and out of 965 children enrolled in Special Education, 927 took the statewide exam, and 830 took the Scholastic Reading Inventory. The date differences are noted as a threat to validity.

Limitations of the search/data collection. There are some limitations with respect to the data for this study. One example is that the dataset only identifies the ELL-SE child as LD, and this may include students who have a math-related disability. Another challenge with using datasets, is that researchers cannot account for duplicates, which includes but is not limited to students who may repeat a grade that result in scores from two years of testing. Another example, the Office of Elementary and Secondary Education allows ELLs who have recently arrived to the United States to be excluded from taking the assessment for one year (NCLB**,** 3121(C)(1)(A)); the state follows this policy. Therefore, the policy would limit the number of ELL children who are included in the testing population, which may benefit the districts and schools for adequate yearly progress (DeJesus, 2008), but limits the research due to the absence of an accurate number for that subgroup. The state identifies children as ELL and SE for two years after exiting the program (Maryland Accountability Workbook, 2009, p. 39); therefore, the students who have tested out of ESL or SE may no longer exist in the ELL or SE category if they tested out of the program more than two years after the test. Likewise,

students who are included may have actually exited the program, though the literature revealed that this number for SE is nominal because ESL is designed as a three-year program, and Special Education is not.

The school district is in a state that does not capture data for children identified as ELL-LD, nor ELL-SE (http://www.mdk12.org/data/MSA/SubGroups.aspx?Nav=1.2:5.1:10.99:15.99:2.22:20.1:3.1); however, the accommodations for the population are documented (Maryland Accommodations Manual, 2008). Students who are identified as ELL and have a disability resulting from their having both an ELL plan and an IEP must follow the accommodations as outlined in their IEP; that is, the IEP takes precedence over their ELL Plan (Maryland Accommodations Manual, 2008, p. 1-1).

Statistical Procedures

Prior methodological scholarship. Previous research provides several approaches with which differences in performance among student populations can be examined. For instance, Barton and Coley (2010) in the ETS Study examined trends on NAEP assessments to show gaps in performance across different races and different socioeconomic groups, and Wang (2008) used t-tests in her study of achievement gaps among four year olds across different reading and math indicators. These studies examined a maximum of four race/ethnic groups and one or two independent variables (Barton & Coley, 2010; Wang, 2008). Other researchers used different methods to investigate achievement gaps. For instance, Mosquin and Chromy (2004) used gap estimators in their study, and although they maintain that there is no legislative statistic

provided for a gap, one of the ways that they show performance differences in their NAEP Validity study, is by calculating percentages of students in the basic category that need to be reduced to make AYP. One of the goals of this research is to provide a statistical model that school districts can use to track students and analyze between and within group gaps, and this study will use segments of Mosquin and Chromy's methods to meet that goal. Scores will be ranked in the Discussion section of Chapter 4, to show how each instructional group performed on both tests, and to show the percentages of students who are basic, proficient, and advanced on the assessment, to complement the AYP statistic for school districts.

Pang, Han, and Pang (2011) researched thirteen racial groups in their examination of 7th grade Asian American and Pacific Islander students in California. The researchers used four independent variables-race/ethnic group, lunch program status, and parent education status to investigate academic differences among several racial groups, using a four way ANOVA. Likewise, this study will investigate three independent variables-race/ethnic group, instructional level, and socioeconomic status, using one way ANOVAs. In addition, this study will employ methods by Nordstokke and Zumbo (2010) in order to transform data that violates Levene's test of Homogeneity of Variance.

Rationale for ANOVA. According to Hinkle, Wiersma, and Jurs (2003), the Analysis of Variance (ANOVA) tests for differences among two or more independent groups, and allows for multiple levels for each group. (Note: ELL-SE will be used to describe ELL-LD; all ELL-SE students in the analysis were identified as ELL-LD). The groups and levels were: instructional level (3 levels-ELL, ELL-SE, SE), for Question 1. For Question 2 the groups were, instructional level (1 level-ELL), (1 level-SE), (1 level-

ELL-SE) and race/ethnicity (6 levels-Black, American Indian, Asian, Latino, Multiracial, and White). For Question 3 the groups were, FARMS (2 levels-non-FARMS and FARMS). ANOVA tests can also account for sample sizes that are unequal, and sample sizes in this study are not equal (Hinkle, Wiersma, & Jurs, 2003) (see next section-Sample Size, Effect Size & Power). Using SPSS Software version 20, the data set was analyzed in order to determine the variance in reading scores across instructional groups, racial groups, and socioeconomic status. (See Table 4).

Hypotheses. In order to determine how 8th Grade ELL-LD students perform on the Scholastic Reading Inventory and a statewide test in comparison to their peers, the following questions were investigated:

1. Is there a gap in reading achievement among 8th grade ELL, ELL-LD, and SE students?

   H_{O1}: There is no difference in reading achievement among 8th grade ELL, ELL-LD, and SE students.

   $H_{A1:}$ There is a difference in reading achievement among 8th grade ELL, ELL-LD, and SE students.

2. Is there a gap in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as ELL, ELL-LD, or SE?

   H_{O1}: There is no difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, and White students when they are identified as ELL.

H_{A1}: There is a difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as ELL.

H_{O2}: There is no difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, and White students when they are identified as ELL-LD.

H_{A2}: There is a difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as ELL-LD.

H_{O3}: There is no difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as SE.

H_{A3}: There is a difference in reading achievement among 8th grade Black, American Indian, Asian, Latino, Multiracial, or White students when they are identified as SE.

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3. Is there a gap in reading achievement between 8th grade ELL-LD students who are eligible for free and reduced meals and those who are not?

H_{O2}: There is no difference in reading achievement between 8th grade ELL-LD students who are eligible for free and reduced meals and those who are not.

H_{A2}: There is a difference in reading achievement between 8th grade ELL-LD students who are eligible for free and reduced meals and those who are not.

Table 4: Research Questions & Analyses

	Independent Variables	Dependent Variables	Analysis
Question 1	Instructional Group	Reading Score (Ranked) and (Unranked)	One Way ANOVA (3 levels for i.v.)
Question 2	ELL and Race SE and Race ELL-SE and Race	Reading Score (Ranked and Unranked)	Three One Way ANOVAs (6 levels for i.v.)
Question 3	ELL-SE and SES	Reading Score (Unranked)	One Way ANOVA

The null hypotheses predicted that the sample means among each factor are equal. Conversely, the alternative hypotheses were that the sample means are not equal. In SPSS, normality was tested using the Shapiro-Wilk test, and histograms were analyzed. The data that violated normality (http://pareonline.net/getvn.asp?v=8&n=6), also violated Levene's Test. From the Levene's Homogeneity of Variance table, the researcher referred to the Significance value, which was set conservatively at .001 to avoid type I errors for the ANOVAs, and to meet the conditions for homogeneity.

Non-parametric Levene's. Levene's Test is sensitive to variances in distribution (http://www.basic.northwestern.edu/statguidefiles/oneway_anova_alts.html#Transformations). Therefore, it is a recommended procedure when data contains unequal sample sizes,

is non-normally distributed, and violates the traditional Levene's Test (Nordstokke & Zumbo, 2010).

In a study comparing Type I errors and the statistical power of the Non-Parametric Levene's Test, Nordstokke and Zumbo (2010) found that, "the mean version of Levene's does not maintain its nominal Type I error rate when underlying population is skewed" (p. 402). The samples in this study are skewed. The Non-Parametric Levene's is based on rank transformations. When data are non-normal, the transformation makes the distribution uniform. As Nordstokke and Zumbo (2010) explain:

> The nonparametric Levene test involves pooling the data from all groups, ranking the scores allowing, if necessary, for ties, placing the rank values back into their original groups, and running the Levene test on the ranks….if one were using SPSS then one would merely have to apply the rank transformation and then submit the resulting ranks to the means Levene test. (p. 403).

As previously stated, the Non-Parametric Levene's Test was used to determine homogeneity of variances of the dependent variable (i.e. reading scores) across groups (i.e. race, instructional group, SES). This test was used in this study in cases where the traditional Levene's test was violated; significance was reported from both the parametric and non-parametric Levene's Test. For instance, for Question #1 the levels for the instructional group were split in SPSS in order to determine which level was violating the Levene's Test. For the SRI, the Special Education data violated Levene's. For the MSA, the ELL-SE data violated Levene's. Therefore, the performance on both assessments by those subgroups required ranking to meet Homogeneity of Variance assumptions. For Question #1, both ranked and unranked scores are reported. For Question #2, the initial

two-way ANOVA violated Levene's both with ranked and unranked scores; therefore, separate one-way ANOVAs, isolating the levels, resulted in an acceptable Levene's Significant value (p value > α) that did not violate Homogeneity of Variance in most cases. During the instances where Levene's was violated, a non-Parametric Levene's was used and ranked scores were reported. For all questions, findings that were Significantly different were reported for both ranked and unranked scores.

The non-Parametric Levene's was employed after using the methods suggested by (Osborne, 2002) and (http://www.basic.northwestern.edu/statguidefiles/oneway_anova_alts.html#Transformations) who suggest to transform data points by taking the ln, square root, square, or reciprocal of the data, or to use the Kruskal-Wallis, or the Median Test. These transformations did not result in an acceptable (p value > α) Levene's test. However, other sources suggest that non-Parametric tests be utilized when distributional assumptions are violated (http://www.sjsu.edu/faculty/gerstman/StatPrimer/anova-b.pdf).

Sample Size & Power. Many studies have documented performance differences by race and language, however, the research on ELL-LD students has been primarily qualitative (Ruffin, 2009; Liu et al., 2008; Haager, 2007; Lesaux, 2006; Abedi 2006; Abrams, Ferguson, & Laud, 2001), and consist of descriptions of between one and twenty ELL-LD students. For this study, the available sample size for each subgroup was used. The sample sizes were ELL-203, ELL-LD (or ELL-SE)-31, SE-794, Black-626, American Indian-4, Asian-20, Latino-322, Multiracial-11, and White-45.

A small sample size can be noted as a delimitation; however, in Maryland (the population for the research) this study can be reproduced by the state (multiplied by each district with ELL-LD) with larger numbers if they mandate that districts report this subgroup. As previously stated, 8th grade is used for NAEP assessments, which feed achievement gap data, and it is a secondary grade level, a level where the literature is limited on ELLs and ELL-LD children. Even with a small sample size, this population contributes to school scores, district scores, and possibly an achievement gap.

Power (1-β) was calculated post hoc, using G*Power 2. Power is the probability that the test will find a significantly different result, when it is actually present (Cohen, 1988), or that the null is rejected when it should be. It is generally accepted that power is .8 or greater, thus an 80% chance of finding a statistically significant difference when there is one (Cohen, 1988). Power increases, as sample size increases, and using G*Power Version 2 software, n for the groups can equal 31, for a power of .8 when $\alpha = .001$.

The next section contains a review of the instruments used to evaluate 8th grade reading performance for this study. These assessments are the Scholastic Reading Inventory and the Maryland School Assessment.

Instruments

*Instrument A***.** The Scholastic Reading Inventory (SRI) is an assessment that evaluates reading comprehension for students in grades 4 through 9 (http://teacher.scholastic.com/products/sri_reading_assessment/research_validation.htm). It was normed on a sample of 512,224 students and was selected because it received an

award for the highest validity and reliability from the National Center on Response to Intervention. Additionally, the SRI assessment was correlated to the Comprehensive Test of Basic Skills (CTBS) another reading assessment used in the district which measures passages with traditional multiple choice items, with r=.56, which means the district could use the data as another source of information for students who are placed as a result of poor CTBS scores, as the correlation is not strong, though strong enough to suggest that it measures a similar construct. Further, in the district and the state where the study takes place, the SRI test is a common assessment. Neighboring districts, as well as other large school districts could replicate this study using their data. The SRI uses a Lexile score, which is a developmental scale interpreted across grade levels. The higher the score, the more challenging material the student is likely able to comprehend, scores range from beginning readers (less than 100) to graduate school readers (1700). Passages are longer for advanced readers and shorter for beginning readers according to the *Scholastic Reading Inventory Technical Guide* (2007).

The Technical Guide provides several samples of reliability and validity with respect to the test design, its definition of reliability as the consistency of scores from an assessment is consistent with other sources (Hinkle, Wiersma, & Jurs, 2003). During the 2004-2005 school year, the reliability coefficient for a study conducted on students in grade 8 was .877 when N was 3,581 in a large school district. This number is considered an acceptable reliability by convention. The reliability score was calculated as test-retest reliability, where two administrations of the same test yielded similar results, coupled with alternate-form reliability. Alternate-form reliability is where two equivalent forms of an assessment yield similar results. The number of test items, the quality of the test items,

and the match between item difficulty and student ability, determined the standard error of measurement.

The SRI test items were developed between 1998 and 2003. In order to examine content validity, or the adequate sampling of relevant test content, developers used an approach they refer to as "hi-lo" (SRI Technical Guide, 2007). Since students at the same grade level would receive the same questions, each test needed a range of items to cover the needs of both high and low achieving students. The hi-lo items were developed based on whether the test items were high interest and low difficulty. Construct validity was measured based on correlations between the *SRI* and other tests, scores for which are expected to increase with age, and most of the matched tests had a strong correlation. The SRI was field tested on a suburban district, grades K-5, with 72% of which were White, 22% of which were Black, 5% of which were Latino, .3% were Asian, and .2% were Native American. An urban district (or non-rural, according to the guide) on grades six through eight, where 91% of the students were White, 5% of the students were Black, 2% of the students were Latino, 2% of the students were Asian, 17% qualified for FARMS, 14% were classified as having a disability, (.1%) of the students were ELLs, and 6% of the students were gifted. The SRI did include samples of each subgroup, with the exception of ELLs with LD, in the norming process, increasing the validity of the assessment.

In 2005, a large school district revealed similar mean test scores across racial groups, and was presented to support criterion validity for the instrument. Criterion validity is documented, as scores are not expecting to fluctuate due to a student's demographic (e.g. race). The standard deviation for Asian students in the sample, SD=

316.21, Black students, SD=316.55, Latino, SD=338.11, White, SD=303.79, LEP students never in an ESOL program, SD=317, exited from ESOL, SD= 288.37, and in ESOL, SD= 292.68. For construct validity, the extent to which the instrument measures the construct, in which case, the SRI is designed to measure reading comprehension. Correlations with the *SRI* and PSAT range from r=.696 when N=84,707 in 2004, to r=.75 when N=85,486 in 2005 for a large school district. Correlations for a large school district in Florida, containing a portion of the *Sunshine State Standards Test* a criterion-referenced assessment, with correlations ranging from r=.817 for N=84,707 in 2004 to r=.825 for N=85,486. The 8th grade scores for proficient and advanced using Lexile scores are 850L to 1100L for grade 8 which are converted to basic, proficient and advanced. Below 850 is basic, 850 to 1100 is proficient, and above 1100 is advanced.

Limitations of Instrument A. Some of the limitations for the instrument are due to lack of information in the technical guide. The guide cited the district as a "large urban school district" (p. 71) with no definition of "urban" (SRI Technical Guide, 2007). The same data revealed a limitation, in that; the data is from all grades over a four-month period, rather than within the same window of time. Additional data did not reveal how states or school districts determined ELL eligibility, in the studies that were presented as evidence of criterion validity.

An additional limitation for this assessment is that it is only available in English, and there are limits to English language learners taking a test in English instead of their native language (Klingner & Harry, 2006; MacSwan, 2006; Abedi, 2006; Solano-Flores, 2006).

Instrument B. The Maryland School Assessment evaluates reading, math, and science achievement. It assesses the state content standards in grades 3 through 8 (http://mdk12.org/assessments/k_8/index.html). The reading test includes both selected response and brief constructed response items. The state follows national definitions for these categories using NAEP (2009) definitions. They are: Basic-partial mastery of prerequisite knowledge and skills, Proficient-solid academic performance, and Advanced-superior performance. In 2010, 46% of 8th grade students performed advanced on the State Reading assessment, 37% of 8th grade students performed proficient, and 17.3% at the basic level (http://mdk12.org/data/MSA/GradeLevel.aspx?Nav=1.2:5.1:10.99:15.99:2.22:20.1:3.4&Tab=DataTable). The cut scores established for the 2011 State Test for grade 8 were 391 for proficient and 425 for advanced.

The process for determining cut scores for basic, proficient, and advanced for the reading test required four groups, one each for grades 3, 5, 8, and 10. The school districts nominated teachers, principals and school systems staff with content expertise to serve in these groups along with members of the State PTA, and the State Teachers Association, or other educational organizations. In round one, the groups became smaller groups and took the MSA. Each participant marked the item that he considered a dividing line between basic and proficient, and proficient and advanced, since the test items were arranged from those most students answer correctly to those that fewer students do. Each item correlated to a scale score, and participants discussed their scores to establish the median scale score (http://mdk12.org/assessments/k_8/index.html).

In the next round, participants voted again for a cut score, reviewed their votes and established a median. This included examination of the percent of students disaggregated by race/ethnicity and special services that would meet the cut score requirements. During the last round, the groups return into the original eight and vote again before making a final vote, and sent their median scores for proficient and advanced for the next part of the process, which is the Psychometric Council. This council reviewed the work, and forwarded recommendations and commendations to the Review & Articulation Committee, which reviewed the work to ensure that rigor was equivalent across grades and subjects before forwarding the recommendations to the State Superintendent.

Limitations of Instrument B. One of the limitations of the assessment is the lack of students involved in the process to determine cut scores. There are content experts and other adults taking an assessment to determine cut scores for students, using questions that they anticipate students will answer correctly; rather than having a control group of students as part of the sampling. Statistical tests show reliability and validity for test items, however, without being sampled by the testing population. The assessment is developed by teachers for students; the tested population is the student population. In addition, the Technical Guide did not document construct validity that related to language of the test as described in the review of literature by Abedi (2006).

In the next chapter, there will be details of test score data and test score analyses. Lesaux (2006) noted that in ELL-SE research the details of the analysis should be explained for replication purposes. This will include but not be limited to the ANOVA,

which is a method that can be replicated, in addition to an analysis based on identifying groups that impact Adequate Yearly Progress.

Chapter 4

Results & Discussion

Findings

Purpose Revisited. The purpose of this study was to examine how children who identified as ELL-SE performed in comparison to other children, using variables from NCLB (i.e. racial minority, economically disadvantaged, disabled, language minority). The other purpose was to examine whether there was an achievement gap synonymous with the conventional achievement gap results (i.e. Asian or White subgroups, above the Black or Latino subgroups) when researching special populations, such as Special Education and English for Speakers of Other Languages.

Research Question 1- The first question in this study addresses whether there is an achievement gap between 8th graders enrolled in the following instructional groups: ELL, SE, or ELL-SE. The number of students in each instructional group is presented in Table 5.

Table 5: *Instructional Subgroup Distribution Sample (*N=1028)

Instructional Subgroup	N	Percentage
ELL	203	19.7
ELL-LD	31	3.02
SE	794	77.2

The majority of the students in the sample are enrolled in Special Education courses. Special Education students make up 10.6% of 8th graders in the participating

district. ELLs make up 4.0% of 8th graders, and ELL-LD .34%. Table 6 shows descriptive statistics of reading scores by instructional group.

Table 6: *Instructional Subgroup Reading Scores (*N=1028*)*

	Statewide Assessment		Scholastic Reading Inventory	
	Mean	Ranked Mean	Mean	Ranked Mean
ELL	366.09 (21.93)	251. 40 (44.10)	714.70 (26.33)	227.14 (10.33)
ELL-SE	307.47 (56.96)	229.45 (37.06)	688.27 (68.37)	164.92 (26.43)
SE	260.56 (18.44)	198.43 (114.51)	745.14 (22.13)	266.92 (5.22)

Note: **Standard deviations are presented in parentheses

The mean ELL-SE score was (M = 307.47, SD = 56.964) on the statewide assessment. For ELLs, the mean score was (M = 366.090, SD = 21.934) and for SE the mean score was (M = 260.561, SD=18.435). On the Scholastic Reading Inventory, the mean score for all ELL children was (M=714.70, SD=26.3), ELL-SE was (M = 688.3, SD=68.4) and SE (M= 745.1, SD=22.1). ELL-SE children performed lowest on the Scholastic Reading Inventory, and for the statewide assessment, SE children performed lowest. To determine if there were significant differences between instructional groups (ELL, ELL-SE, SE) a one-way ANOVA (dv-reading score; iv-instructional subgroup) was used. Variance was tested using a Nonparametric Levene's test (p = .004). Table 7 provides the results of the ANOVA.

Table 7: *Results from ANOVA of Instructional Groups on SRI*

	df	*F*	*P*	η^2
Inst. Group	2	12.035	.000	.023
Within Group	1025			
Total	1028			

There was a significant difference (main effect) on the SRI between the ELL, ELL-SE, and SE instructional groups, F (2, 12.035) = 2.917, p = .000. Tukey-Kramer's test was used to further investigate which groups were significantly different (See Table 8).

Table 8: *Results from Post-Hoc of Instructional Groups on SRI*

	Instructional Groups				
	ELL-SE	SE	ELL	*F*	*p*
Mean	164.92_b (20.7)	266.92_{ab} (5.35)	227.14_a (9.61)	12.035	.000

Note: ** = $p \leq .001$ Standard errors appear in parentheses below mean. Means with differing subscripts within rows are significantly different at the $p \leq .001$ based on Tukey-Kramer. These are ranked scores.

There were significant differences between ELL-SE and SE (p = .000), as well as ELL and SE (p = .001) when $\alpha \leq .001$. Unranked scores demonstrated the same qualitative results. The researcher rejects the null that the reading scores of 8th grade ELL, ELL-SE and SE students are equal.

Research Question #2. Three one-way ANOVAs (one for each individual instructional group) were used to determine whether there was an achievement gap

among 8th grade Black, American Indian, Asian, Latino, Multi-racial or White children when they are identified as ELLs, ELL-LD and SE. Descriptive statistics for the sample are in Table 9.

Table 9: *Instructional Subgroup and Race Distribution Sample (*N=1028)

	Race/Ethnicity					
	Black	American Indian	Asian	Latino	Multi-racial	White
Instructional Group						
ELL	30 (14.8%)	--	14 (6.9%)	155 (76.4%)	--	4 (1.9%)
ELL-SE	3 (9.7%)	--	1 (3.2%)	27 (87.1%)	--	
SE	593 (74.7%)	4 (.5%)	5 (.6%)	140 (17.6%)	11 (1.4%)	41 (5.2%)

Note: **Percentages of the racial composition for each instructional subgroup are presented in parentheses

The largest group in the sample was Black children in Special Education, followed by Latino children enrolled in ESOL, then Special Education. The smallest group in the sample was Asian children identified as ELL-SE, and Black children identified as ELL-SE. Results of the ANOVA for ELLs on the statewide assessment (dependent variable-reading score, independent variable-race, independent variable-ELL) revealed a significant effect across differences races, F (3, 3.821), p = .011, η^2=.054. (See Table 10 below).

Table 10: *Results of the ANOVA of ELLs on State Assessment*

Source	df	*F*	*p*	η^2
Race	3	3.821	.011	.054
Error	199			
Total	202			

In order to investigate which specific racial/ethnicity group created the effect, post-hoc results revealed that there was a statistically significant difference between the reading scores on the statewide assessment of 8th grade Latino children and Black children identified as ELLs. Group means for Black children 377.43 (23.12), and Latino children 363.43 (20.5). Tukey-Kramer was used in the post hoc, $p \leq .001$ and the Pairwise Comparison of the ranked scores also confirmed these findings.

On the Scholastic Reading Inventory, ranked scores revealed a significant difference across races/ethnicities of 8th grade children in Special Education as shown in (See Table 11 below).

Table 11: *Results of ANOVA of SE on SRI*

Source	df	*F*	*p*	η^2
Race/Ethnicity	5	4.304	.001	.027
Error	788			
Total	794			

The ANOVA results F (5, 4.304), p = .001, η^2=.027 for 8th grade children enrolled in Special Education and who identify as Black, White, Multiracial, Asian or Latino, show that there was a significant difference in reading scores on the Scholastic Reading Inventory. The Post-Hoc test showed that there were significant differences between the scores of Black students and White students in Special Education; as well as significant differences between the scores of White and Latino students in Special Education (See Table 12.

Table 12: *Results of Post-Hoc SE on SRI*

	Race/Ethnicity		
	Black	Latino	White
SE Means	264.26_a (6.12)	258.91_b (12.60)	355.260_{ab} (23.29)

Note: ** = p ≤ .001 Standard errors appear in parentheses below mean. Means with differing subscripts within rows are significantly different at the p ≤ .001 based on Tukey-Kramer.

Based on these results, the researcher rejects the null that sample means are equal for 8th graders who are in ELL, ELL-SE, and SE programs and identify as Black, Asian, American Indian, Latino or White.

Research Question #3. For Research Question #3 the differences in achievement between 8th grade ELLs in Special Education who are eligible for FARMS and those who are not eligible for FARMS was investigated. The Descriptive Statistics for the sample are below in Table 13.

Table 13: *Farms and non-FARMS for ELL-SE (N=31)*

Eligibility	N	Percentage
FARMS	20	64.5
Non-FARMS	11	35.5

The majority of 8th grade students who are identified as both ELL and SE are also eligible for free and reduced meals. An ANOVA was used to analyze the data on this sample. The results of the ANOVA are displayed in Table 14.

Table 14: *ELL-SE Eligible for FARMS Results on SRI*

Effect	df	*F*	*p*	η^2
SES	1	15.360	.000	.346
Within group	29			
Total	30			

Table 14 presents the results of the ANOVA where a significant difference exists between ELL-SE children who are eligible for FARMS and those who are not, F (1, 15.360), p = .000, η^2 = .346. The group means for the FARMS and non-FARMS group appear below in Table 15.

Table 15: *Mean Scores for ELL-SE Farms/non-FARMS on SRI (N=31)*

	Mean	SE
FARMS	646.48	44.09
Non-FARMS	750.27	36.06

For the purpose of continuity, it is noted that the ranked means also showed significant differences between ELL-SE students who were eligible for FARMS and those who were not. Based on these results, the researcher rejects the null hypothesis at $\alpha = .001$, that there is no difference in reading performance between 8th grade ELL-LD students who are eligible for FARMS and those who are not.

Discussion. The ANOVA results illustrated differences between and among various groups of 8th grade ELL, ELL-SE, and SE students. There are a couple of reasons that scores from other subgroups may not have yielded significant differences. For instance, two different tests were used, and the tests were not taken at the same time; a threat to external validity. Also**,** due to small sample sizes, there may be different means that do not produce a significant one-way ANOVA F test statistic unless the sample variance is small (http://www.basic.northwestern.edu/statguidefiles/oneway_anova_ass_viol.html#Unequal%20population%20variances).

On the Maryland School Assessment, there were significant differences between Black children and Latino children who were enrolled in ESOL, as well as a significantly

different score for ELL-SE children who were eligible for FARMS and those who were not. The ranked scores revealed significant differences between ELL and SE, and ELL-SE and SE on the Scholastic Reading Inventory. The Scholastic Reading Inventory scores were also significantly different between White and Latino children enrolled in SE, and White and Black children enrolled in SE. Therefore, the results of the ANOVA are to reject the hypothesis that there are no differences in reading achievement for 8th grade students in ELL, SE, and ELL-SE subgroups; to reject the hypothesis that there are no differences in reading achievement for 8th grade students who are ELL, SE, or ELL-SE and identify as Black, American Indian, Asian, Latino, Multiracial or White; and to reject the hypothesis that there are no differences in achievement between 8th grade ELL-SE students who identify as FARMS. These results are based on the student's scores on the Scholastic Reading Inventory and the Maryland School Assessment.

On the Maryland School Assessment, the mean ELL-SE score was 307 (SD=57.0), the mean ELL score was 366 (SD=21.9) and the mean SE score was 261 (SD=18.4). There was a difference in achievement for the ELL-SE population; Black children, outperformed Asian children and Asian children outperformed Latino children. The ELL-SE population only included Latino, Black and Asian children. For ELLs, the order of achievement based on scores was: Black, Asian, Latino, and White. For SE, White, Black, Latino, Asian, Multiracial, and American Indian (See Table 16).

Table 16: *SRI and Statewide Assessment*

Scholastic Reading Inventory	**Statewide Assessment**
White SE-811	Black ELL-SE-378
Multiracial SE-787	Black ELL-377
Black ELL-754	Asian ELL-365
Black SE-723	Latino ELL-363
Asian SE-721	Asian ELL-SE-363
Asian ELL-719	White ELL-359
Latino SE-718	White SE-325
Latino ELL-711	Black SE-269
American Indian SE-710	Latino SE-268
Black ELL-SE-705	Asian SE-247
Asian ELL-SE-695	Multiracial SE-231
White ELL-673	American Indian SE-223
Latino ELL-SE-664	Latino ELL-SE-182

Table 16 also presents the scores of the 8th grade students tested on the Scholastic Reading Inventory. Both the ranked and unranked scores on the statewide assessment revealed that ELL-SE students, as an instructional group, score below their peers. However, these results are not to be overgeneralized; these are the results of only two assessments, sample sizes are small, and the data is from one school district. The methods, however, can be repeated in school districts with an ELL, SE or ELL-SE subgroup. On the Maryland School Assessment, the mean ELL-SE score was 307.469

(SD=56.964). For ELLs, the mean score was 366.090 (SD=21.934) and for SE the mean score was 260.561 (SD=18.435). There was a significant difference in achievement across racial/ethnic groups for the ELL population as reported by the ANOVA. For this subgroup, Black ELLs received the highest mean score on this assessment.

There were other differences between groups (though not statistically significant per the ANOVA). For instance, on the Scholastic Reading Inventory, White students in Special Education performed the highest, however White ELLs scored next to last based on scores that were ranked in descending order in Table 16. This difference in scores makes it challenging to determine which assessment to use, since the same group took the same tests and scored differently as a subgroup in terms of rank. However, on the MSA, the scores for White SE and White ELLs were much closer. Multiracial students received scores that present a similar challenge. They received some of the highest scores on the SRI, and some of the lowest scores on the MSA. As stated above, since the scores are from the same students on different tests, this is a rationale for further investigation at the district level to determine whether there were outliers or an individual score that largely impacted the group mean for one of the tests.

The ELL-SE population revealed gaps in a different sequence than research historically shows in General Education. For the ELL-SE population, Black children outperformed Asian children and Asian children outperformed Latino children. Likewise, on the Scholastic Reading Inventory, for the ELL-SE population, Black children outperformed Asian children and Asian children outperformed Latino children. It is important not to overemphasize these findings, there was only one Asian student in the ELL-SE group; however, Black ELL-SE children received the highest mean score out of

all instructional groups on the Maryland School Assessment. These results do not align with the literature (Wang, 2008) that reports that White and Asian children consistently outperform Black and Latino children, more of which will be discussed in the Implications chapter. An ELL-SE group received the highest and lowest mean scores on the MSA, which could explain why the unranked ELL-SE scores violated Levene's Homogeneity of Variance test; this was discovered by splitting the cases in SPSS. Also, prior scholarship reveals that some ELLs may be over-identified for LD (Artiles & Klingner, 2006), which may be another reason why Black students who are identified as ELL-LD outperformed even their ELL peers. That is not to presume that the group is incapable of performing higher than their peers across different races; however, previous achievement gap data shows otherwise (Barton & Coley, 2010; Wang, 2008). In addition, these children are in three "disadvantaged" groups (i.e. racial minority, language minority, and learning disabled), and on a statewide assessment in a NAEP reported grade, they outperformed students in fewer "disadvantaged" subgroups (e.g. Black ELLs, White SE) based on mean scores. There is one subgroup that received mean scores that are consistent with traditional General Education research, that is Latino children who are identified as ELL-SE. They received the lowest score on both assessments.

Eighty-seven percent of students in ELL-SE identify as Latino. Latino students make up 76.4 percent of the ELL population and 17.6 percent of the special education population. All ELL-SE children who identify as Latino reported the language spoken at home as "Spanish," and 85 percent reported being U.S. Born (including Puerto Rico). The other birth countries reported in the ELL-SE group were Mexico, El Salvador,

Pakistan and Sierra Leone. The other languages reported were: Yoruba, Amharic, and Krio. The NCLB 2001b indicates that ELLs can take standardized tests in their native language for 3 to 5 years, however, neither the MSA nor the Scholastic Reading Inventory is available in other languages (SRI Technical Guide, 2007). There are assessments that are available in Spanish, and since it is permissible by law, perhaps districts with a large percentage of ELLs who speak Spanish as a native language, or a population where ELLs with Spanish as a native language are performing lower than other children, will consider this option and review bilingual assessments for these children.

Students of the same race who speak different languages may identify as a different racial group, depending on the available race/ethnicity categories. For instance, the Black students in the ELL-SE category reported speaking languages that are spoken on the continent of Africa, specifically Sierra Leone, Nigeria, and Ethiopia may accept the term "Black" because the term describes them phenotypically, but reject the term African-American as they may not have accepted or assimilated into American culture (Igoa, 1996).

Adding the term "African" as a separate race, when using "African-American" may present different findings and separate individuals who do not identify as the latter. "Black" is often used synonymously with "African-American", instead of as a separate group. Likewise, Chinese American, Korean American, and Indian Americans may reveal different results in the "Asian" race category if given the opportunity to identify as a separate racial group. Some research finds that the data is skewed as a result (Banks &

Banks, 2006), and other research examines the above racial groups separately (Pang, Han, & Pang, 2011).

Additional opportunities for generational literacy may have existed for families of African descent who are able to migrate from a historically anglophone or francophone country to the US, compared to families descending from enslaved Africans who were not allowed to be literate until hundreds of years later. There may be additional opportunities for generational literacy for a family arriving to the United States via airplane from Europe or Asia, compared to the pre-migration and literacy history of a Central American family who came to the United States via land. In both of the examples above, one group requires more resources than the other to travel or arrive in the United States, and research correlates greater resources with higher education possibilities, advanced literacy, and empowerment (Sampson, Sharkey, & Raudenbush, 2007; Lareau, 2003).

Analysis of Instructional Levels. In addition to considering pre-migration histories as a rationale for student performance, identifying the languages of students taking a high-stakes assessment may help with test selection for ELLs. For districts that desire instruments that predict or determine state assessment scores that impact future instructional placement and AYP, it may be useful to sample student responses and conduct a correlation on a series of tests to determine an instrument that can be used as a predictor or as a preparatory tool. This depends on the data needed, and the pursuit of multiple types of analyses yielded strikingly different results.

Following Mosquin and Chromy (2004) who conducted NAEP validity studies, the researcher calculated the percentages used for Adequate Yearly Progress on both

assessments, for each subgroup identified as "disadvantaged." Identifying students based on the instructional levels used in Adequate Yearly Progress, showed similar scores for each subgroup on both tests, which is different than the findings above. There are different cut scores for students to meet, so rather than ranking the scores, groups are reported as basic, proficient, and advanced.

Out of the 794 students in Special Education who participated in both assessments, there were 32 (4%) who scored advanced, 238 (30%) who scored proficient and 524 (66%) who scored basic on the Scholastic Reading Inventory. Of these same students, 46 (6%) scored advanced, 234 (29%) scored proficient, and 514 (65%) scored basic on the statewide assessment (Figures 5 and 6).

Figure 5: *SRI Score for SE Group 2011*

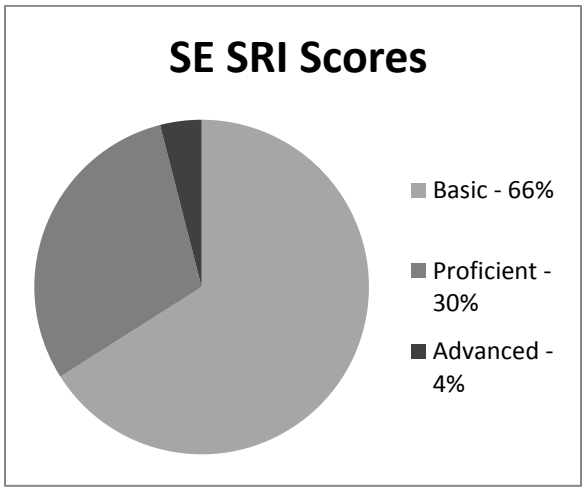
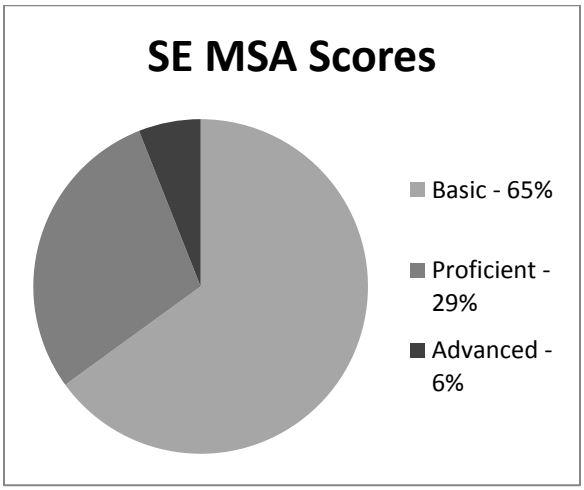


Figure 6: *MSA Score for SE Group 2011*



Out of the 203 students in ESOL who participated in both assessments, there was 1 (.5%) who scored advanced, 56 (28%) who scored proficient, and 146 (72%) who scored basic. Of these same students, 44 (29%) scored proficient and 159 (65%) scored basic on the statewide assessment (Figures 7 and 8).

Figure 7: *SRI Score for ELL Group 2011*

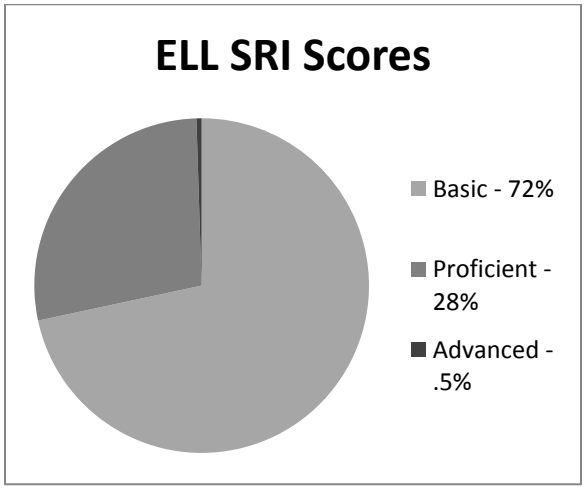
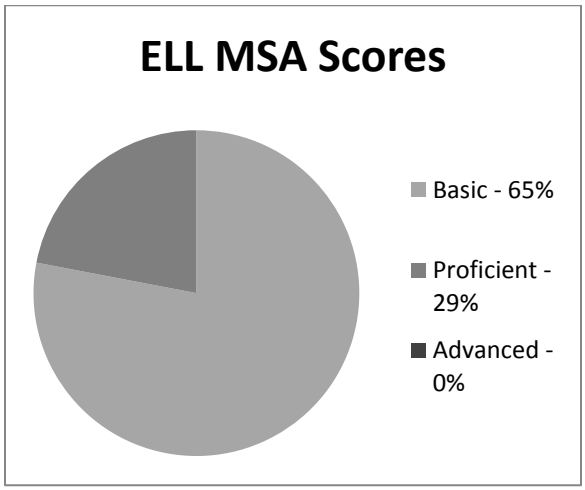


Figure 8: *MSA Score for ELL Group 2011*



If other conditions are met for AYP, and the ELL or SE subgroups fails to meet their target in 2011, and the district provides instruction that would move 52 SE students out of the basic category, and 16 ELL students out of the basic category, and they can make AYP for 2012 despite gaps in achievement. This is based on Safe Harbor provisions (NCLB, 2001).

Safe Harbor is possible even when subgroups do not meet the target given by the state education agency. Out of the 31 ELL-SE students who took both assessments, 4 (13%) scored at the proficient level, and 27 (87%) scored at the basic level on the Scholastic Reading Inventory. Of those same students, 6 (19%) scored at the proficient level, and 25 (81%) scored at the basic level on the statewide assessment.

Figure 9: *SRI Score for ELL-SE Group 2011*

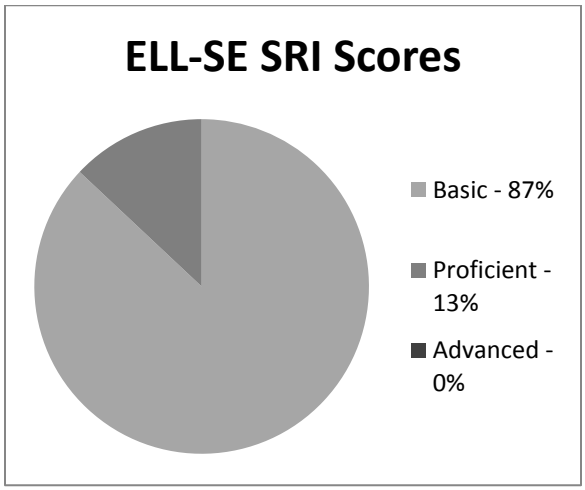
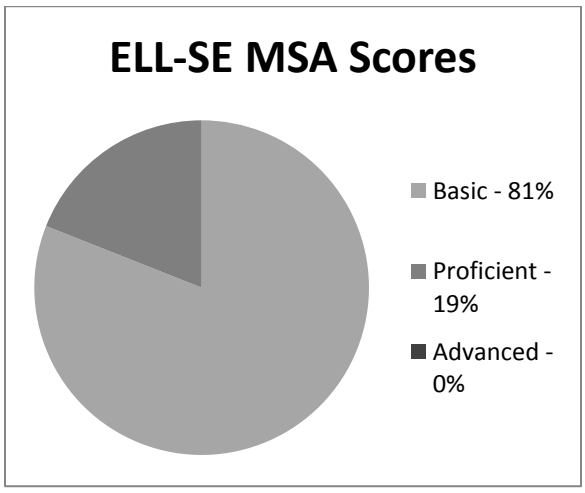


Figure 10: *MSA Score for ELL-SE Group 2011*



The above charts (Figures 9 and 10) illustrate the performance of instructional groups by instructional level; these are methods that districts can replicate to calculate the number of students needed to pass the state assessment in order to make adequate yearly progress. As the focal group of the study, the ELL-SE group is also disaggregated based on instructional level, and race/ethnicity, followed by FARMS status.

Figure 11: *SRI Score for ELL-SE Group x Race 2011*

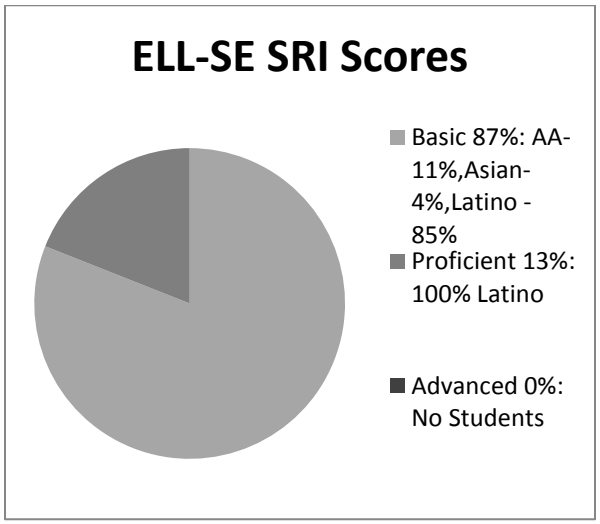
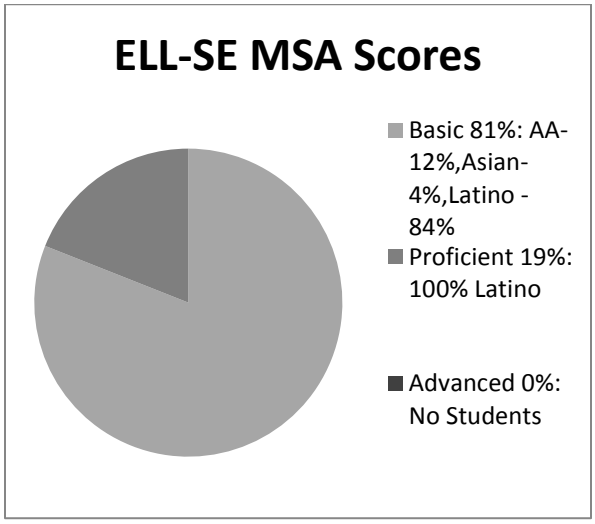


Figure 12: *MSA Score for ELL-SE Group x Race 2011*



This data (Figure 11) shows that of the 87% of ELL-SE students who scored at the basic level, that 11% were Black, 4% were Asian, and 85% were Latino on the Scholastic Reading Inventory. The data also shows that of the 81% of ELL-SE students

who scored at the basic level (Figure 12), that 12% were Black, 4% were Asian, and 84% were Latino. The data also shows, that 100% of 8th grade ELL-SE students who received a score of proficient on the statewide assessment and the Scholastic Reading Inventory, identified as Latino. This is significant, since the analysis of the means in descending order by race and instructional group showed that the highest performing group of ELL-SE on the statewide assessment is Black students. This does not change the findings based on the hypotheses from the ANOVA; there are still significant differences for 8th grade students among the instructional groups. Black students outperformed their peers based on mean scores; and based on cut scores Latino students outperformed their peers as well. For districts that need student data to inform instruction, it is essential to use multiple analyses in order to determine which populations need additional assistance to narrow achievement gaps.

Since it is unclear whether ELLs in Special Education are reported as ELL or as SE, perhaps the states have the flexibility to choose. Students who score in the basic category can impact adequate yearly progress (Mosquin & Chromy, 2004); and districts may find it helpful to know which students perform at this level. For instance, the population with the least number of students would benefit from having the ELL-SE students who perform proficient or advanced. In this study, that is the ELL group. The four students who performed at the proficient level, could be counted with the ELLs, and then only 12 students would be needed for the district to make AYP. However, the number of students in the basic category for ELLs in Special Education may be a negative factor for a smaller population. The SE category would gain 4 proficient students and absorb other students in the basic category. With such large numbers it may

be a more reasonable goal. Until there is a policy that states where ELLs are placed, districts should report them where it is most beneficial; unless ELLs in SE are reported in both categories.

In addition to racial minorities, language minorities, and students with a specific learning disability, there is one other group that contributes to achievement gap data, and adequate yearly progress; that is, the group of students who are eligible for FARMS. FARMS status is usually kept confidential; however, this analysis would be helpful for administrators who have access to this information at the district level. In addition, it can add to the achievement gap literature on ELLs in Special Education who are FARMS eligible. The ANOVA for Research Question #3 revealed significant differences between FARMS eligible and FARMS ineligible students (Figures 13 and 14).

Figure 13: *Percentage of ELL-SE FARMS at the Basic Level-SRI*

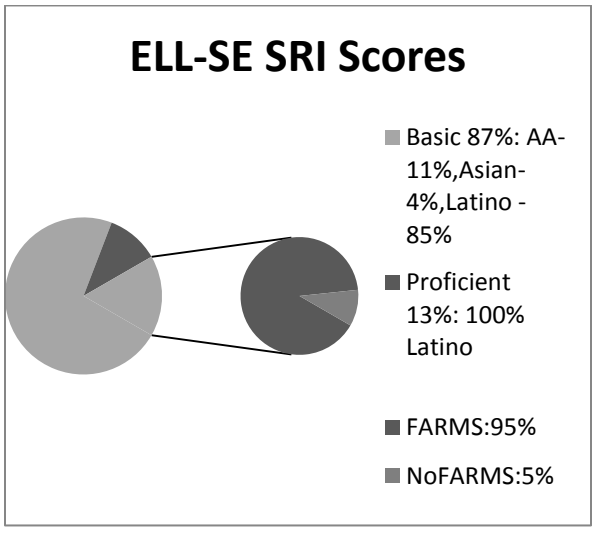
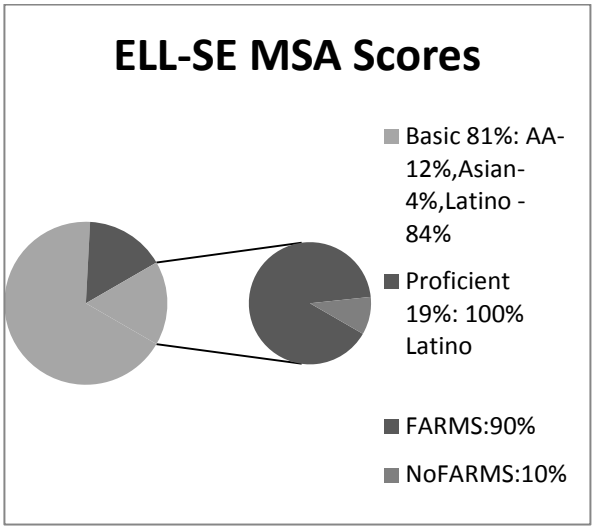


Figure 14: *Percentage of ELL-SE FARMS at the Basic Level-MSA*



Out of the 20 ELL-SE/FARMS eligible students, 19 (95%) scored at basic and 1 (5%) at the proficient level on the SRI (Figure 13). Out of the 20 students who are ELL-SE and eligible for FARMS, 18 (90%) scored at the basic level and 2 (10%) at the proficient level on the Maryland School Assessment (Figure 14). Coutinho, Oswald, and Best (2002) identified socioeconomic status as a predictor of LD status, and the majority of ELLs in Special Education in this district are eligible for FARMS.

The lowest scores in the dataset are from students who are ELL, SE, Racial Minority and FARMS. The mean scores as described in the ANOVA for ELL-SE FARMS students were 664.48, SD=44.09 on the SRI, compared to 750.27, SD=36.06. On the MSA, students eligible for FARMS were, 177.20, SD=36.23 for FARMS, and 259.91, SD=50.49 for non-FARMS. This exceeds the challenges of students who are in

Double Jeopardy; these students are in Quadruple Jeopardy, due to achievement gaps across language, race, disability status, and socioeconomic status.

In the next section, there will be suggestions and recommendations for the success of children who are identified as ELL-SE. This includes, but is not limited to implications for achievement gap reporting, ESL instruction, ELL-SE identification and assessment, state and local policy, and research.

Chapter 5

Implications

Overview: Closing the Achievement Gap continues to endure as a challenge to U.S. schools. Even in 2012, school practitioners and administrators around the country gathered to discuss this issue at the annual Association for Supervision & Curriculum Development Conference. The sustained attention to the achievement gap has led to achievement gaps closing in some states. For instance, eighth grade Latino students in Virginia, have the highest writing scores in the country, and Virginia has the smallest achievement gap between White and Latino students in the U.S. In addition, NAEP results for Texas and the Department of Defense Schools show gaps closing (http://www.subnet.nga.org/educlear/achievement/). These statistics document race/ethnicity, and show that achievement gaps can close among majority and minority racial groups.

Reporting and Stereotypes. Using Critical Race Theory and Sociolinguistics as a lens for this research, it is suggested that future achievement gap studies document the test and subgroup, so that researchers and practitioners can identify the specific gaps and draw precise conclusions. It is also recommended that achievement gap research includes a variable that can be influenced by instruction, and includes the method employed in the study. For instance, "using several one way ANOVAs, this study revealed significant differences on a statewide assessment between Black and Latino students who were identified as ELLs. There were also significant differences on the Scholastic Reading Inventory between Black students and White students in Special Education, and White

students and Latino students in Special Education." These are the results for this study, and the type of commentary that would be helpful for educational stakeholders to provide instruction to these populations.

Most achievement gap statistics report that White and Asian children consistently outperform Black and Latino children. Some of the results of this study were consistent with that research. On the Scholastic Reading Inventory, White children in Special Education outperformed Black, Latino, Asian and Multiracial children in all other subgroups in the sample. However, on the State wide assessment, the results showed that Black children identified as ELL-SE outperformed White, Asian, Latino and Multiracial children in all subgroups in the sample. The SRI data shows the traditional achievement gap. The statewide assessment shows a non-traditional achievement gap, and is a counter-example to achievement gap literature. This is notable because achievement gap research commonly feeds the narrative that White and Asian children are smarter than other groups of children because they receive higher test scores.

The analysis of children and how they perform based on basic, proficient and advanced levels, show that a percentage of Latino children in the ELL-SE categories outperform their peers. They were the only group identified as ELL-SE to score at the proficient level. There are very few studies that show that Latino children outperform their counterparts; which is troubling since the impact of stereotypes on achievement in American classrooms is prevalent in the research (McKown & Weinstein; 2008; Bae, et al., 2008; Reyna, 2008; Klingner & Harry, 2006; Elhoweris, et al., 2005; Taylor & Dorsey-Gaines, 1988). On the Scholastic Reading Inventory, Asian students performed in this order: SE, ELL, ELL-SE, from highest to lowest scores. On the SRI, Asian students

performed in this order: ELL, ELL-SE, and SE. Therefore, even across same races, different instructional groups perform differently, which is why the instructional group should be reported in addition to the race/ethnic group. All of the above findings are profound and are examples that the results of achievement gap scholarship are limited to the population, the test, and the analysis.

Bilingual Resources/Assessment. The results of this study show that some ELLs in Special Education performed lower than their peers on a statewide assessment and the SRI; and it is still unclear whether this is due to language or disability. A non-language dependent test, as suggested by Roseberry-McKibbin and O'Hanlon (2005) may provide clarity. Using these tests, the educator can identify the specific strengths and weaknesses where language is negligible. When language is the challenge, Short and Fitzsimmons (2007) recommend that states have a Language Threshold Measure, which would let the instructor know that the student has acquired enough English to be ready for assessments. In support of Short and Fitzsimmons (2007) it is further advocated that students take a readiness test, coupled with the Language Threshold Measure, one assessing language, the other considering the learning-disabled status. Incorporating these suggestions may assist with AYP scores, and give ELL-SE students the opportunity to be more prepared for the assessments that they take in English.

Tests in languages other than English are allowed (NCLB, 2001); however, there is no evidence that suggests that this statewide assessment or the SRI is available in another language. Finding the most appropriate solution for high-stakes testing of ELL-SE children can only be researched if states provide the tests in other languages, and based on this research it is suggested that states take advantage of the opportunity to test

all students in their native language. Solano-Flores (2006) contends that in addition to the language of the test that the dialect of the test is also critical. Based on his findings, and the results of this study, it is recommended that native language tests are not only available, but translated by region. For instance, Mexico was one of the countries identified in the ELL-SE data. A Mexican-born student who speaks Spanish may find it advantageous to have a test translated to Spanish; however the translator may have learned Spanish in another part of the world (e.g. Spain) that uses a different dialect of Spanish. For the Mexican students who are ELL-SE in this study and identified Spanish as their native language, it may be best to have the test translated by native speakers who learned Spanish in that country so that the student grasps the context as well as the content. Likewise, an American-born English-speaker from the U.S. would better benefit from an English translation of a test by a speaker of American English, rather than a translated English test by a speaker of British English. In areas of the country receiving new populations of Latinos, such as the South and Far West, there exists a critical shortage of bilingual school personnel (MacDonald & Carrillo, 2010). Larger districts may find this task less troubling since the majority of ELLs reside in large school districts (Artiles & Klingner, 2006), and have more concentrated areas of bilingual residents to provide bilingual assistance (U.S. Census, 2010).

Based on the results of this study, there are other languages that need to be addressed for the ELL-SE child, in addition to Spanish (McCardle, Mele-McCarthy, & Leos, 2005). Other ELL-SE students reported languages of Urdu, Krio, Amharic, and Yoruba. These languages may not be as accessible as Spanish, however it is necessary to provide educational opportunities for all students. Forming a Translator's Club, or

International Club that draws the attention of multilingual students is one way to provide a resource and find peer to peer assistance for students. Disseminating assessment scores and language data to schools, will aid teachers in identifying specific multilingual resources for the students at their school.

Once the districts identify the gaps in achievement for ELL-SE children, teachers of those students who perform well on high-stakes assessments should be surveyed to inform the eduational community about strategies or coursework that may have positively impacted the students' literacy. Research on ELL-SE students should document their literacy pasts, and describe their instructional contexts particularly when they perform at proficiency levels on high-stakes assessments, or outperform their contemporaries. For this study, those groups are Latino and Black ELL-SE students. The similarities found in teacher background, instructional strategies, parental support, and ESOL or SE coursework can be utilized as a resource for individuals working with ELL-SE students. It would also be valuable to have access to the types of accommodations given to students. This data can help states determine whether the IEP should supercede the LEP, which is policy in the state where this study took place (Maryland Accommodations Manual, 2008, p. 1-1).

Expections/Instructional Goals. Reading goals on the IEP of ELL-SE students who perform at the proficient level, should be made available so that participants of the IEP Team will have a list of effective strategies that match reading objectives when IEP Goals are written. According to policy, "accomodations may include small group administration; extra time for flexible scheduling; simplified instructions; dictionaries; recorded, native language instructions, and allowing students to record responses in their

native language." (NCLB, 2001, Part A. Sec.111(3)(C)(ix)(II). It is essential that the IEP Team is knowledgeable about the accomodations available for the ELL-SE child since they are not the same as the accomodations allowable for the SE child (Liu, et al., 2008; Klingner & Harry, 2006). Even with identification, Wagner, Francis, and Morris (2005) recommend that a team member should know that if a child is: a) a Spanish speaker, b) speaks English at the BICS level, and c) demonstrates inadequate performance on assessments, that the child should be tested in two languages. Current federal policies do not include recommendations like these for the ELL-SE child.

One of the priorities documented by federal policy is "Equity and Opportunity for All Students," which describes the expectations for every student having an equal chance for success (USDE, 2010). In A Blueprint for Reform, there are sections that suggest accurate measurements, and high standards for all children. ELLs and students enrolled in Special Education are mentioned in the document, and there is commentary about better assessments for all children; however, there is no evidence in the document that gives guidelines for students in multiple subgroups, nor ELLs in Special Education. It is necessary that policies at the local, state, and federal levels give guidelines for the ELL-SE child. As a result of the lack of specific policies, ELLs in Special Education may have factors such as inadequate instruction preventing their performance.

Teacher Preparation. Inadequate instruction may also be a factor in the performance of the ELL-SE child since "highly qualified" teachers of ELLs are not obligated to have ESL certification (http://www2.ed.gov/teachers/nclbguide/nclb-teachers-toolkit.pdf). According to the NCLB (2001), a highly qualified teacher of ELLs is only required to meet the general education standards; that is, certification in a core

academic area (i.e. Reading, Mathematics). Subsequently, the 2010 recommendations by Teachers of English to Speakers of Other Languages (TESOL) to the U.S. Senate included an expansion of the definition of "highly qualified teacher" for ESL and Bilingual Education in NCLB (2001) (TESOL, 2010); as there is a need to employ instructional practices and assessment measures that appropriately evaluate the needs of these students (Spinelli, 2008).

Three states are requiring teachers to be certified in ESOL and Special Education according to, Highly Objective Uniform State Standard of Evaluation (HOUSSE) (2010). Until research reveals the appropriate coursework for a pre-service teacher to successfully teach children identified as ELL-SE, states and districts should give preference to these teachers who are certified in ESOL. If ESOL teachers are not available, then teachers certified in Special Education are the next choice. States should also require that ELL training be part of the approval process for teacher preparation programs at state universities and for state approved alternative education programs. This can occur in the Multicultural Education/Diversity courses, or in methods coursework. It may also be advantageous to include *SIOP* (Sheltered Instruction Observation Protocol) (Echevarria, Vogt, & Short, 2009) as part of recertification for teachers by state education agencies; and to infuse the aforementioned coursework with experiences or observation of ELL, LD, and ELL-LD students. These experiences can include observations of ELLs in Special Education from classroom visits or from digital media that captures these students in a classroom setting.

Time and Place. The policies referenced and suggested in this study are in response to and relevant to reading and literacy education through 2012, primarily in the

Mid-Atlantic region of the United States. For instance, the findings from the National Reading Panel (http://www2.ed.gov/programs/readingfirst/support/foundations.html) show that there are five components of reading instruction; fluency, comprehension, vocabulary, phonemic awareness, and phonics. These five components of scientifically based reading reasearch (SBRR), may have shaped decisions, instruction and assessment through this year. Allington (2005) described 5 "missing pillars" in the five components of the National Reading Panel's SBRR. They were a)access to interesting text and choice; b)matching children with appropriate texts; c)writing and reading have reciprocal positive effects; d)classroom organization; and e)availability of expert tutoring. As reading research continues, new standards, like Common Core, are forthcoming. These standards include components such as oralcy, impacting English Language Learners. In California, these standards have been adopted, and as more states adopt Common Core standards for Reading and Mathematics, local policies may be revised to reflect the new standards. Therefore, due to changes in policy that occur in education, research on some of the subgroups in this study are temporal, as some findings depend on current policies and the research or dataset location. Results of research on ELLs and children enrolled in SE depend on the mandates in place at that time. This should be discussed in programs that focus on ELLs in Special Education.

Dual certification programs researching ELLs in Special Education are emerging in the Mid-Atlantic (http://www.gwu.edu/learn/graduateprofessional/findagraduateprogram/fulllistofprograms/bilingualspecialeducation). Ideally, Bilingual Special Education and ELL-SE graduate program outcomes and coursework should include RTI for ELLs, Appropriate ELL-SE

Assessment, BICS vs. CALP, Academic Language, Life factors influencing LD children, Effective multiracial and multilingual classrooms, Sociolinguistics, and IEP/LEP goals. Dual certification programs should give teachers the option of teaching one of the two populations, but equip them with the skills to teach children who are identified as ELL-SE. Graduates of these programs can rotate campuses or teach combined 6th, 7th, and 8th grade ESOL courses at the middle school level, which in the participating district would serve class sizes of approximately 15 students. The highly qualified teacher requirements for ELL-SE should reflect the outcomes described above for dual certification programs.

Teacher Certification. A highly qualified teacher should be available for students speaking a Standard national language, and instruction in students' native language should occur in states where bilingual education is permitted. In the Mid-Atlantic region of the United States, for instance, there are no "English-Only" laws (Artiles et al., 2010; de Jong, 2008). Researchers and practitioners in this region could provide useful data on the impact of native language instruction on ELLs identified with LD. Teachers speaking the language of the student can better determine whether there is a phonological deficit, (Wagner, Francis, & Morris, 2005) and accurately identify the reading ability of the child.

Some states require teachers to take Reading courses for re-certification; as the ELL population is expected to increase, these courses should expose teachers to ELLs and ELLs in Special Education. All teachers should be familiar with Response to Intervention; and Reading Teachers should know how to implement it. Reading Teachers at the K-12 level should also be familiar with strategies for ELLs, and ELLs in Special Education, and consider collaborating with ESL teachers to provide a list of relevant,

bilingual materials. Teachers are not expected to become bilingual, or learn another language to teach ELLs or ELLs in Special Education, rather the expectation at the state certification levels should be to make teachers aware of cultural differences and to understand and consider linguistic differences (Villegas & Lucas, 2002).

ELL/LD Identification. If a student who speaks a language or dialect different than that of the assessor (or teacher) are performing lower than other students, they should be referred to a Reading Teacher, ESOL Teacher, Dual Certified Teacher or Reading Specialist who should then compare this students literacy skills (i.e. reading, writing, speaking, and listening) to that of a student speaking the same language. Reading Teachers, Dual Certified Teachers, ESOL Teachers, and Reading Specialists should proceed with the following steps in order to avoid misidentification when there is a phonological difference.

1). Refer to the Technical Guide of the assessments used in Step 1 of RTI, (Figure 4 in "Disabled" section) which includes a universal screening. Determine whether the test is reliable and valid for the population of students. If the test is district-wide and cannot be changed, then these steps should occur after the universal screening.

2). If the test indicates that it was normed with a population or considered a population that is racially, culturally and linguistically similar to the tested group of children in the school, examine other students' scores to ascertain how same language/same race students performed on the assessment previously. Preferably this should occur by reviewing both ranked scores and cut scores.

3). Research whether the tests used with the students is available in the language(s) for the tested population, and give both versions of the test (e.g. English and Spanish). Consider the challenges and implications if only one test is available, then proceed with the RTI process. If the Technical Guide did not include a sample of the tested population of children, follow district guidelines for the universal screening, bearing in mind that the assessment did not consider the language knowledge of the students.

(Note: Practitioners may consider sharing the Technical Guide information with their Instructional Leaders and Administrators if students in their district are not included in the test design. With permission of a Headmaster or Superintendent, practitioners may also consider sharing findings with the Test Publishing Company if large groups of students perform above or below average for a given population, when the Technical Guide documents that a population similar in sociodemographics was considered or included in test development).

4). In Tier 1 of RTI, small group instruction could include, bilingual books, books on tape, culturally relevant resources that parallel students' gender, home country, native language and phenotype (Moll, 1995). The texts should be on the student's instructional level (Short & Fitzsimmons, 2007).

Parents of non-responders should be informed at this point (Maldonado-Colon, 1995), so that they are aware of possible implications of the child's score. The assessor should identify both strengths and weaknesses to the parent, and provide strategies and suggestions for the child (i.e. test taking skills, language and

comprehension building, fluency activities). This communication should take place with a certified bilingual paraprofessional (Klingner, Artiles, & Barletta, 2006), or parent liaison. If the district or school does not have a bilingual professional, at the very least, the educator should share the native language data with the parent or adult relative who speaks the same language and dialect as the student (Solano-Flores, 2006).

5). Persistently low performers can proceed to Tier 2, where weekly, individual instruction should occur. The educator should gather samples of reading, writing and speaking in English and the native languages. The level of the student should be evident at this point, and the educator should also incorporate process-dependent tasks (Roseberry-McKibbon & O'Hanlon, 2005). For nonresponders, the educator should examine the student's literacy past to determine whether there was a significant life event that is inhibiting the child's performance (Wilkinson et al., 2006; Abrams, Ferguson, & Laud, 2001). This may include collaboration with a school counselor, family member, or previous educator, keeping in mind that a lack of a response when requesting an oral language sample may be due to the silent stage (Igoa, 1996).

6). After consulting with the parent or a speaker of the same language/dialect for additional feedback on reading, writing, and speaking data samples', investigating the life history for traumatic events, having no response to process dependent tasks, and documenting that the child is not progressing in his native language or English, then the educator should find out whether there has been interrupted schooling. If so, the educator should continue attempting to accelerate the skills

using native language material, and English resources. If there has not been interrupted schooling, the educator can proceed to Tier 3 with the knowledge that there was no over-reliance on testing, rather a collection of different artifacts of the students strengths and weaknesses, that indicate that the child's needs cannot be met in a General Education setting.

This recommendation should not occur until the next universal screening, or until the student is given another opportunity to take the assessment a second time.

An over-reliance on language differences can lead to over-identification of ELLs (Haager, 2007; Abrams, Ferguson, & Laud, 2001). Although it is difficult to determine that this is the rationale for the disproportionate numbers of ELL-LD students in this study, there are also validity issues that relate to the identification of ELLs with LD taking a test in only English (Abedi, 2006). With inconsistent policies and unpredictable assessment requirements across districts and states, reaching consensus on the ways to identify these children, and establishing a standard criteria for the types of assessments that are valid for ELLs identified as LD is vital.

Psychometrics. Suggestions for future testing include having an individual who can analyze statistics and psychometrics available in the school district. This Psychometrician can also assist the local and state education agency with identifying ways to determine over-identification and disproportion, so that students are properly identified and adequately supported. In addition, this individual can serve on the IEP Team to interpret test results (http://mdk12.org/instruction/specialed/students_identified_for_se_services.html), and

give feedback on assessments that are not valid for ELL-SE children. Utilizing Generalizability Theory to ensure linguistic alignments similar to Solano-Flores (2006) in his analysis of language, test items, and test scores is recommended.

In an analysis of psychometric issues for the assessments of ELLs, Abedi (2006) suggests that the English language becomes another construct if the language of the tests for ELLs is difficult. One strategy is to incorporate test-taking strategies into coursework, similar to the electives available for monolingual students (American College Board, 2008). In this study, based on the percentage of students scoring at the basic, proficient, and advanced level, ELL-SE students who identified as Latino and as speaking Spanish scored the highest and lowest on the assessments. If the students who are in the higher ESOL courses scored the highest, then it is possible that the test is measuring language. In future analysis of ELL-SE students, it may be necessary to examine students by ESOL level, or date of ESOL enrollment in order to determine the constructs that the test is measuring.

Advocacy. The measurements of a reading or language test should not be biased toward students who speak English as another language (Solano-Flores, 2006; Abedi, 2006) and students should not be diagnosed as LD when tests are used that measure more than the construct described, or that are a result of sociocultural factors. According to the exclusionary clause: The term [LD] does not include learning problems that are primarily the result of visual, hearing, or motor disabilities or mental retardation, of emotional disturbance, or of *environmental, cultural, or economic disadvantage*. (34 C.F.R. §300.7(c)(10)ii, emphasis added). This is essential to note when there is evidence of cultural mismatches (Au, 1998) and students receiving a lower quality education based

on socioeconomic status (Anyon, 2005). In this study, the lowest ELL-SE scores were from students eligible for FARMS. These findings are consistent with a study by Hart and Risely (1995). Hart and Risely (1995) examined word usage between professional families, working class families, and families eligible for welfare. Professional families heard 2,153 words per hour, working class families heard an average 1,251 words per hour, and families eligible for welfare heard an average 616 words per hour. Researchers found significant differences and a vocabulary gap between these groups. Based on their findings and other studies previously discussed that examine the impact of socioeconomic status on vocabulary use and knowledge (Sampson, Sharkey, & Raudenbush, 2007; Taylor & Dorsey-Gaines, 1988) increased use of oral and written language can provide families with strategies to counteract these findings.

School districts can make family literacy activities available in multiple languages, and share the opportunity using bilingual letters from the principal or school leaders, and automated message systems that are generally used to report absences and other messages from the school. Districts should make offerings of bilingual literacy available to all families, to avoid stereotyping and a deficit approach to these programs. The programs should expose parents to both English and their native language if possible, building proficiency in both languages; as well as opportunities to use vocabulary more frequently, increasing word usage and word knowledge. In addition, Early Childhood Offices should be included in any family literacy program, as the prior scholarship reveals literacy differences across racial groups prior to kindergarten (Wang, 2008; Lee & Burkam, 2003). District-wide literacy programs should give families opportunities to build literacy skills at primary levels.

In addition to building literacy skills, parents should be informed about the possibility of LD misidentification. In this study, one hundred percent of the students who were identified as ELL-were also identified as LD. Therefore, disproportion is definite, and misidentification is likely. In the Wilkinson, et al. (2006) study where researchers who were former Special Educators, re-evaluated student profiles, only 21 percent of the students received an affirmative by each evaluator that they met LD guidelines (Wilkinson, et al., 2006). There is a need for evaluations of a random selection of profiles at the state and federal levels in districts that report statistics of disproportion, and when a district exceeds percentages using a given formula for disproportion (e.g. Chinn and Hughes), parents should be informed.

Parents of ELLs in Special Education can advocate for a re-evaluation of their child. According to special education policies (http://mdk12.org/instruction/specialed/students_identified_for_se_services.html), parents are part of the IEP Team, but it is unclear whether a letter goes home in the child's native language to alert the parent that the child is identified as LD. There is also a requirement to have an individual on the team who can interpret results. If only the parent and the interpreter are present, and the word "interpret" means "to translate into another language" (which is different from how it is used in the above recommendation for Psychometrics), who are the individuals that ensure that the parent is receiving accurate information or information from a trained professional? Ochoa (as cited in Klingner, Artiles, & Barletta, 2006), researched psychologists to determine how they complied with the exclusionary clause. The researcher found, that more than half of the psychologists used interpreters during sessions with students who spoke a language other

than English, and only 37% of interpreters had formal training. Students should not be diagnosed with LD due to cultural differences, according to IDEA's exclusionary clause (2004). Families who speak a language other than English should receive the information about the student in a format that they understand, so that they can make the same decisions as an English-speaking family.

Parents should be made aware of IDEA (2004), and the IEP should be translated to multiple languages in every state (http://mdk12.org/instruction/specialed/how_does_the_IEP_process_work.html). Federal policies could make this process more comprehensible to families with children in Special Education by making communication multilingual. In Maryland, the IEP is available in several languages, though it is unclear whether the letter that goes to the parents is multilingual for the LD child, like it is for the ELL child (http://www.marylandpublicschools.org/MSDE/programs/title_III/pnl.htm). Parents should be informed that even though an evaluation takes place every 3 years, it can take place prior to the 3 year mark at the parent's request (http://mdk12.org/instruction/specialed/students_identified_for_se_services.html). If a child has not had interrupted schooling, and was not identified as LD or SE in their country, additional assessments should be requested by the parent, and they should advocate for whether they concur with the findings, since they can deny the services. Schools that have Parent Night or Back to School Night or events that involve parent's attendance, should have a special session for parents of children who are in any special program; including ELLs in Special Education.

Adolescent ELL-SE Literacy. Parents should be made aware of the differences in BICS and CALP, or receive examples in their native language, so that they do not equate their child speaking English, with high standardized test scores. In the Maldonado-Colon (1995) study, teachers and parents thought that children needed BICS level English to be successful, when they actually needed CALP. Adolescent ELLs in particular, need more CALP than BICS, as the literacy focus becomes more academic at the secondary level (Liu et al., 2006). At the secondary level, there is a need for strategies to increase literacy. Recommendations for instruction for 8th grade ELL-SE include pairing students who speak the same language, and perform well on assessments, with those who do not perform well on assessments. Considering aliteracy (Beers, 2003) and culturally mismatched instruction (Abrams, Ferguson, & Laud, 2001), these students should receive materials that are age-appropriate, engaging, and matched to their instructional or independent level (Allington, 2005). Teachers should also consider technology as a resource to engage adolescents in tasks such as digital storytelling, educational games that build literacy, and Web 2.0 tools (Groff & Haas, 2008).

This study includes a large percentage of Spanish speakers in the ELL-SE category, and a large percentage of African-American SE students who perform at the basic level. In addition to the strategies suggested above, teachers can follow the practices of Abrams and colleagues' (2001), and use information on students' birth country as a theme or topic in the classroom (Moll, 1995). In addition, bilingual dictionaries and racially diverse texts are recommendation in the literature (Short & Fitzsimmons, 2007; Moll, 1995; Au 1998). It is also recommended for teachers to use an interest inventory to determine what students are interested in to motivate them, since it is

reported that adolescent readers are able to read but do not (Kaywell, 2009). Based on prior scholarship, teachers may want to allow students to code-switch (MacSwan & Rolstad, 2006; Ladson-Billings, 2001). Even if students are not using a "standard" language, speaking is one of the components of becoming literate, and some states give Oral Language Assessments (MacSwan & Rolstad, 2006). It may also be advantageous for teachers to participate in a lesson plan/curricular review, or consider curriculum strand/content that is written from a cultural and linguistic minority perspective (Ladson-Billings & Tate, 1995; Greene, 1992).

Future Research. Historically, achievement gap research focuses on race (Barton & Coley, 2010; Wang, 2008; Mosquin & Chromy, 2004). Based on the documented research on racial stereotypes and the impact that they have on student performance (McKown & Weinstein, 2008; Bae et al., 2008; Reyna, 2008; Klingner & Harry, 2006; Elhoweris et al., 2005; Taylor & Dorsey-Gaines, 1988), it is possible that other variables coupled with race are more advantageous for future achievement gap work. Race as a variable assists with identifying equity issues and differences, and while race is most salient to conventional achievement gap scholarship, what is serviceable is the language and instructional group. Achievement gap studies should begin including ELL, SE and ELL-SE students in research. It is a logical appeal since some of the students in these subgroups contribute to the categories that create the gap (Haager, 2007).

In addition to the inclusion of ELL-SE students in achievement gap research; the research and practitioner community would benefit from more quantitative studies on ELLs in Special Education. Districts with ELL-SE students at the secondary level can repeat the analysis found in this research to identify gaps for either ELL-SE children or

children in the basic category that can make an impact on Adequate Yearly Progress. Future studies that document quantitative data on ELLs in SE would help determine the prevalence of ELLs in Special Education. Studies that predict reading achievement based on sociodemographic variables (Coutinho, Oswald, & Best, 2001), like the four disadvantaged groups, or a combination of groups like the ELL-SE child, would inform scholarship about the impact of race, language, and disability as factors in achievement.

Students in all four disadvantaged groups (language minority, race minority, learning disabled, and FARMS) should have the choice of opting-out of high-stakes assessments in states that do not utilize native language tests. If students must take the test; alternative assessments, Language Threshold Measures, or readiness tests should determine whether their score should count toward AYP. Policies should be in place for those ELL-SE students, and their classroom context should be researched and compared to other students in those subgroups who perform well on high-stakes assessments. The students who need additional assistance can also be targeted for small group instruction. Once the target group is identified, Reading Specialists and other educational stakeholders can determine which tests to use, and which tests to omit, based on their student population. Test score results can be used in Response to Intervention, for tests that are considered valid. Reading teachers can use these results to work with Special Education teachers and ESOL teachers in determining whether the scores provide sufficient evidence for LD placement, or whether it can serve as a predictor for a future high stakes test (Knutson, 2008) in their district. Though it is not encouraged to generalize the data from this study, findings revealed the results of commonly used assessments (i.e. standardized state test and SRI) so that educators would have a resource

to use when making the decisions above, and so that researchers would have a model that uncovers test scores of ELLs in Special Education.

As studies continue to emerge on ELLs in Special Education, suggestions for calculating over identification are needed. Is it common that 100 percent of the ELLs in Special Education are identified as LD? Continued research that documents numbers of ELL-LD children can answer this question. Due to the disproportionate number of ELLs identified as LD in this study, more research on the appropriate identification is essential. Prior scholarship proposes an extra level of RTI (Klingner & Bianco, 2006), and finding the appropriate screening tools for Tier 1. Is the SRI or a statewide assessment an appropriate screening tool for children identified as ELL-SE? This research reveals ranked scores by instructional group and race that showed that even though one group of ELL-SE students scored the highest on the SRI, another ELL-SE group received the lowest scores on the SRI. A future study that ranks scores and investigates mean differences based on languages and ESOL level may be beneficial. This research also reveals percentages of ELL-SE children who perform at the proficient level, and others who speak the same language and are the same race/ethnicity, who perform at the basic level. Future studies that show ELL-SE performance on the SRI, since it is used across the U.S. (SRI Technical Guide, 2007) will help determine whether these findings are conventional. For the ELL-LD child, it is suggested that future research employs a panel from both the ESOL and Special Education fields to review profiles similar to Wilkinson et al., (2005) when ELL-SE numbers are disproportionate. The different levels from that study were: Type 1-academic problems from learning environment (e.g. no bilingual instruction/no ESL); Type 2-instruction is not modified (e.g. students performing below

grade level, goals not incorporated into instruction); Type 3-disability cannot be met by general education. It is further contended that, when a district reports numbers similar to this one, approaching 100 percent, that only the Type 3 students receive the ELL-LD label.

It is still unknown whether ELL-SE students should be placed with a certified Special Educator, or a certified ESOL teacher. As Bilingual Special Education programs appear around the country, it is presumed that the placement for the students is with those individuals. More Bilingual Special Education research is needed; and it is reasonable for this research to occur since federal funding may be made available that can be used to find the best placement and reading assessments for the ELL-SE child. According to A Blueprint for Reform (2010), grants will become available to establish new criteria for SE students and for ELLs, including Migrant students. There are also proposed grant funds for state, and local education associations and non-profit organizations for new, sustainable, high-quality instruction to improve literacy. Finally, it is highly recommended that ELL-SE research is not limited to literacy and language, and that an investigation of appropriate instruction and assessment extends to other disciplines, such as, mathematics and science.

This study began with a broad analysis of factors impacting the achievement gap and focused in on four factors concerning ELLs and Special Education. Our demographic, imperative of the 21st century has expanded traditional definitions of the achievement gap. As this study demonstrates, there are many achievement gaps that must be considered for equitable educational opportunities.

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