

DIFFERENCES IN THE READING ACHIEVEMENT OF TEXAS GRADE 3
ENGLISH LANGUAGE LEARNERS AS A FUNCTION OF THEIR ECONOMIC
STATUS, ETHNICITY/RACE, AND GENDER: A MULTIYEAR STATEWIDE
STUDY

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Gideon D. Schleeter

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DEDICATION

I dedicate this dissertation to my family, Ashly, Gavin and Ameila. I thank them for all the encouragement, love, and support they have provided me. To my extended family, Nana, Gigi, Dad, and Pawpaw, the support they provided allowed me to continue, even when I wanted to stop.

ABSTRACT

Schleeter, Gideon D., *Differences in the reading achievement of Texas Grade 3 English Language Learners as a function of their economic status, ethnicity/race, and gender: A multiyear statewide study*. Doctor of Education (Educational Leadership), December 2017, Sam Houston State University, Huntsville, Texas.

Purpose

The purpose of this journal-ready dissertation was to examine the degree to which differences were present in the reading achievement of Grade 3 English Language Learners by their economic status, ethnicity/race, and gender. Specifically analyzed in the first investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners who were Not Poor (i.e., did not qualify for the reduced or free lunch program), for English Language Learners who were Moderately Poor (i.e., qualified for the reduced lunch program), and for English Language Learners who were Extremely Poor (i.e., qualified for the free lunch program). In the second investigation, the current Texas state-mandated assessment in reading was examined to determine the extent to which test scores differed by the ethnicity/race (i.e., Asian, Black, Hispanic, and White) of English Language Learners. The purpose of the third investigation was to ascertain the degree to which reading scores were different between English Language Learner boys and girls. By examining three years of Texas statewide data in each article, the degree to which trends were present in the reading performance by the economic status, ethnicity/race, and gender of Grade 3 English Language Learners was determined.

Method

A casual comparative research design was used herein. Texas archival data on English Language Learners were analyzed for the 2012-2013 through the 2014-2015 school years. Inferential statistical procedures were calculated to determine whether differences in reading were present by economic disadvantage, ethnicity/race, and gender.

Findings

For each statistical analysis, as the poverty level of English Language Learners decreased, their reading performance was statistically significantly lower. Regarding ethnicity/race, Asian English Language Learners had statistically significantly higher reading performance than Hispanic, Black, and White English Language Learners in every analysis. Hispanic English Language Learners had the statistically poorest reading performance in most comparisons. White, Hispanic, and Black English Language Learners, had similar results throughout the comparisons. Concerning gender, English Language Learner girls outperformed English Language Learner boys in all statistical analyses. Results were congruent with existing literature regarding the relationship of economic status, ethnicity/race, and gender with reading performance.

KEY WORDS: English Language Learners, Economic Status, Ethnicity/Race, Gender, Texas, STAAR, Reading, Achievement Gaps

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CHAPTER I

INTRODUCTION

English Language Learners constitute a sizable percentage of student enrollment in public schools in the United States. In the 2013-2014 school year, 9.2% of public school students were classified as English Language Learners (National Center for Education Statistics, 2016a). Of importance was that this 9.2% reflected an increase in English Language Learner students over the previous decade. In the 2003-2004 school year, 7.5% of students enrolled in public schools in the United States were English Language Learners. With respect to the state of interest in this journal-ready dissertation, Texas, a total of 5,359,127 students were enrolled in public schools in the 2016-2017 school year in Texas. Of these students, 1,010,596 individuals were English Language Learners. In contrast to the national figure of 9.2%, English Language Learners in Texas represented about 18.86% of the Texas public school population (Texas Education Agency, 2016a).

With the increase in population over the last decade to the English Language Learner population in public schools, educators are increasingly focused on their documented achievement gaps with their peers (Abedi, 2002, 2010). English Language Learners score lower on both standardized and non-standardized tests than do students who are native-English speaking students. Interventions and strategies to teach English Language Learners are being implemented to ensure the learning process is the equalizer for the educational process. With a large percentage of the United States and Texas population being an English Language Learner and that population increasing every year,

it is imperative that empirical data be available about the relationships between students economic status, ethnicity/race, and gender pertaining to their reading achievement.

Review of the Literature on English Language Learners and Economic Status

According to the Coleman Report (1966), the most definitive factor that affected student academic achievement was the economic status of the household in which the student lived. Poverty influences the prior knowledge that students have when they enter school along with their reading skills (Wright, Slate, & Moore, 2016). Without prior knowledge gained by experiences, students in poverty are at a disadvantage not only when they enter school but throughout their educational experience. Students in poverty come to school with a lack of resources such as emotional, relational, physical, and knowledge of informal or hidden rules (Lacour & Tissington, 2011). Poverty not only affects student academic achievement, but also increases the likelihood of students dropping out of school (Harding, 2003).

In a recent national study, Reardon (2013) compared the academic achievement of students in poverty with the academic achievement of students who were privileged. In his examination of academic achievement for over five decades, Reardon established that the achievement gap between these two groups of students had increased from 0.9 SD to 1.25 SDs from 1950 through 2000. The achievement gaps that were present among ethnic/racial groups did not decrease as the students transitioned from the first grade to middle school grades, but rather continued to widen over time. Household experiences, as well as the experiences students have prior to and while in school, affect the learning that occurs inside of the classroom. Reardon (2013) contended that school systems and

policymakers need to work together to build early interventions during the primary years in school to address these achievement gaps.

In a recent study of school economic composition and student achievement, Palardy (2013) analyzed the relationships of high school student economic status with student academic success. Students who were enrolled in a school with a higher economic status were 68% more likely to attend a 4-year institution than were students who were enrolled in a school with a lower economic status. Palardy (2013) suggested that mediating factors such as emphasis on academics in the schools and integration of economic levels (i.e., Not Poor, Moderately Poor, Very Poor) within the school may address the negative consequences of attending a low socioeconomic school.

In Texas, the state of interest in this investigation, Wright et al. (2016) examined the reading skills of high school students as a function of student economic status. They analyzed data from the 2003-2004 through the 2011-2012 school years from the Texas Assessment of Knowledge and Skills Exit Level English Language Arts exam. Wright et al. documented the presence of statistically significantly lower reading skills for students in poverty compared to their more economically privileged peers. In their 8-year analysis of Texas statewide data, they established the presence of moderate effect sizes regarding poverty and student reading performance.

In another recent investigation conducted in Texas, Lee and Slate (2014) examined advanced levels of academic achievement by student economic status. In their analyses of the Texas Assessment of Knowledge and Skills Exit-Level Mathematics and English Language Arts test scores, statistically significantly lower percentages of students who were economically disadvantaged met the Commended Performance

standard than did students who were not economically disadvantaged. In their study, students in poverty statistically significantly underperformed their counterparts in both reading and mathematics. Of note in their investigation was that a substantial proportion, 43%, of their sample were economically disadvantaged. According to the Texas Education Agency (2016a), the statewide percentage of public school students who are economically disadvantaged increased from 55.5% in the 2005-2006 school year to 58.9% in the 2015-2016 school year. The implications of these high percentages of students in poverty include limiting their access to secondary education and subsequent effects on employment.

In another recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 students. In her research, three tiers of poverty classifications were present: Not Poor, Moderately Poor, and Extremely Poor. Students classified as Extremely Poor qualified for the federal free lunch program whereas students classified as Moderately Poor qualified for the federal reduced price meals program. Students in the Not Poor group did not qualify for either federal meal program. McGown (2016) established the presence of a clear stair-step of achievement (Carpenter, Ramirez, & Severns, 2006) in that students who were Extremely Poor had the lowest reading performance in all three school years. Students who were Moderately Poor had the next lowest reading performance in all three school years. Consistent with the extant literature, students who were not in poverty had the highest levels of reading performance.

In an international study, Caro, McDonald, and Willms (2009) analyzed data from the Canadian National Longitudinal Study of Children and Youth on the relationship of economic status with student age and academic performance. In particular, they focused on mathematics achievement. Caro et al. (2009) determined that the achievement gap was twice as large at 12 years of age than at 7 years of age. As students mature, the effects of their family's economic status continue to influence their achievement in school.

With respect to the population of interest to this investigation, English Language Learners, the percentage of students in public schools in the United States who were English Language Learners was 9.3% in the 2013-2014 school year. This percentage reflected an increase of 0.5% from the 2003-2004 school year (National Center for Education Statistics, 2016a). By 2025, the National Clearinghouse for English Language Acquisition (2006) estimated that 25% of the student population in the United States would be English Language Learners. The percentage of English Language Learners in Texas increased from 15.7% in the 2005-2006 school year to 19.55% in the 2015-2016 school year (Texas Education Agency, 2016a).

With respect to the state of interest in this investigation, Texas, a total of 5,359,127 students were enrolled in elementary and secondary public schools during the 2016-2017 school year. Of those students, 1,010,596 individuals were identified as being an English Language Learner, which represented about 18.86% of the Texas public school population (Texas Education Agency, 2016a). With a large percentage of the United States and Texas population being an English Language Learner and that

population increasing every year, it is imperative that empirical data be available about the relationships between student economic status and reading achievement.

The group of students who are English Language Learners warrant interest because of their documented achievement gaps. Students who are English Language Learners have lower academic achievement scores than do their native-English speaking peers (Abedi, 2002, 2010). English Language Learners score lower on both standardized and non-standardized tests than do students who are native-English speaking students.

In a recent Texas investigation, Flores, Batalova, and Fix (2012) compared cohorts of students and followed from Grade 1 through high school graduation. They first separated the students into two groups: students who were ever English Language Learners and those students who were never English Language Learners. From there, Flores et al. further delineated the data in regard to students who graduated on time or students who graduated late. A major finding in the analysis was that the majority of students who graduated on time achieved the basic proficiency level on both the reading and mathematics exams, but had much lower success on the Commended Performance level. Flores et al. determined that student graduation from high school was more highly correlated with race/ethnicity than with English Language Learner status. Consistent with previous research (Balfanz, 2013), poverty and access to college ready academic opportunities were among the most influential factors that determined whether students enrolled in a postsecondary setting, regardless of their English Language Learner status (Flores et al., 2012).

Review of the Literature on English Language Learners and Ethnicity/Race

Educational leaders have been and continue to be engaged in efforts to close the academic achievement gaps (Coleman, 1965; Reardon, 2011) that have been documented for over the past five decades. Beginning in 1990, the National Assessment of Educational Progress started collecting data to measure the academic performance of students in United States public schools. According to the National Assessment of Educational Progress's 2011 report, achievement gaps in reading between Hispanic and White students have remained constant over the past 25 years. To address achievement gaps, beginning in 1965, former-President Johnson signed into law the Elementary and Secondary Education Act. This act was a civil rights law that provided structures to ensure educational opportunity for all students. In 2015, former-President Obama's administration reissued this act under the name, Every Student Succeeds Act, in which a renewed commitment was made to provide equal opportunity for all students. Under the Every Student Succeeds Act, states are granted flexibility regarding requirements of the No Child Left Behind Act. States are able to develop strategic plans to close achievement gaps, increase equity, and quality of instruction for all students (U.S. Department of Education, 2015).

According to the United States Census Bureau (2014), 49,474,000 students are enrolled in elementary schools and high schools across the United States. Of those students, 22,719,000 students are either Black or Hispanic, which represents 45.92% of the student population in the United States. Furthermore, nearly a quarter of the student population is economically disadvantaged, with the majority of this group being Black and Hispanic students. With respect to the state of interest in this investigation, Texas, a

total of 5,232,065 students were enrolled in elementary and secondary public schools during the 2014-2015 school year. Of those students, 3,383,224 were either Black or Hispanic, which represented about 64.66% of the Texas public school population (Texas Education Agency, 2016a). With a majority of the United States and Texas population being either Black or Hispanic, it is imperative that empirical data be available about the relationships between student ethnicity/race and reading achievement.

Over the next decade, public school enrollment is estimated to increase by 6%, for a total of 52.9 million students (National Center for Education Statistics, 2015a). Over the last decade, the percentage of White students enrolled in public schools in the United States decreased from 59% to 51% (National Center for Education Statistics, 2015b). In 1971 when the National Assessment of Educational Progress reading assessment began, the two major ethnic/racial groups were Black and White. At the time, these two ethnic/racial groups comprised almost 98% of all students in the United States (Hemphill and Vanneman, 2011). By 2024, the ethnic/racial composition of students in public elementary and secondary schools is estimated to be White, 46%; Black, 15%; Hispanic, 29%, Asian, 6%; American Indian, 1% and Two or more races, 4% (National Center for Education Statistics, 2015b).

The educational system was created to provide equal opportunities for all students, though based on research, an achievement gap is present (Leefatt, 2015; Harvey et al., 2013). According to the National Education Association (2015), the achievement gap is defined as the difference between test scores of Black and Hispanic and or low economic students and their White or Asian peers. This gap often leads to long term gaps

in college completion and the jobs they secure during their lifetime. According to Leefatt (2015), the achievement gap is caused by a lack of exposure and opportunities.

In regard to student achievement, Bohrnstedt, Kitmitto, Ogut, Sherman, and Chan (2015) reviewed the results from the National Assessment of Educational Progress Mathematics exam. Specifically, they analyzed the academic achievement of Black and White students in comparison to the demographic composition of the school in which the students attend. The Black-White achievement gap was 26 points in each density category.

Hemphill and Vanneman (2011) completed a longitudinal study of the National Assessment of Educational Progress and compared the performance of Hispanic and White students in reading and mathematics from 1998 to 2009. Based on the results, the achievement gaps have not increased nor decreased between these two groups based on the assessment results. Hemphill and Vanneman (2011) contended that the achievement of these two groups was not determined by their ethnicity/race and that other various background factors such as poverty contributed to their success, or lack thereof.

In a recent Texas statewide analysis, Harvey, Slate, Moore, Barnes, and Martinez-Garcia (2013) analyzed longitudinal American College Test (ACT) data and the extent to which the achievement gap in college readiness skills had changed among the different ethnic/racial groups of Texas students over the last decade (2001-2011). Harvey et al. (2013) established the presence of clear separations between the four ethnic/racial groups in each year of this study. Average ACT scores were always the highest for Asian students, followed by White students, then Hispanic students, and finally by Black students. The largest difference in academic achievement test scores revealed was

between Black and Asian students, which was 5.48 points. The smallest difference in average scores were between the Black and Hispanic students, 1.31 points. Though both state and federal governments have emphasized closing the achievement gaps, the achievement gaps between ethnic/racial groups, at least with respect to college readiness, have not changed over time.

In another study, Clotfelter, Ladd, and Vigdor (2009) analyzed the achievement gap in third through eighth grade in North Carolina Schools. They primarily focused on the Black-White gap, but included Asian and Hispanic data as well. Beyond simple mean differences, Clotfelter et al. determined that the racial/ethnic gaps in mathematics decreased for low-performing students whereas the gaps for high-performing students had increased.

Similarly, Horton (2004) examined academic achievement gaps between Black and White students at both the elementary schools and high schools. Horton (2004) analyzed standardized assessment data to compare scores between high performing and low performing schools. In a regression analysis, ethnicity/race or economic status was not a negative factor at high performing or low performing schools. Horton (2004) suggested that the quality of the teaching in each of the schools should be analyzed to determine the difference.

In a statewide Texas investigation, Rojas-LeBouef (2010) explored the extent to which achievement gaps persisted in reading and mathematics for Texas Grade 5 students over a 16-year period from 1993 until 2009. During that time span, the Texas Education Agency transitioned from the Texas Assessment of Academic Skills to the Texas Assessment of Knowledge and Skills, thus resulting in some years not having compatible

tests. Even so, over that period, White students outperformed Hispanic students, who themselves outperformed Hispanic students who were also English Language Learners in reading and mathematics. Of the 60 statistical comparisons in her dissertation, 43 comparisons were identified as being large effect sizes and 15 comparisons were moderate effect sizes. In each comparison over the 16 years, results were statistically significant and provided strong evidence that achievement gaps were present (Rojas-LeBouef, 2010). In all instances, English Language Learners had statistically significantly lower average reading and mathematics test scores than Hispanic non-English Language Learners.

In a very recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 students. McGown established the presence of a clear stair-step of achievement (Carpenter, Ramirez, & Severns, 2006) as Black students had the lowest reading and mathematics performance in all three school years. Hispanic students had the next lowest reading performance in all three school years. Asian students always had the highest average performance, followed closely by White students. McGown's (2016) results were commensurate with the existing research literature.

In relation to the population of interest for this article, the National Center for Education Statistics (2016a) established that 78.4% of English Language Learners reported speaking Spanish in their homes during the 2013-2014 school year. The total percent of English Language Learners in public schools during the 2013 school year was 9.2%. Asian English Language Learners were the second largest group participating in English Language Learner programs at 10.6%. From 2009 to 2013, the overall

percentage of Hispanic English Language Learners decreased from 31% to 28.7%, though this subpopulation increased from 3.4 million to 3.6 million students.

More specifically in regard to Texas, during the 2015-2016 school year according to the Texas Education Agency (2016a), 89.5% of English Language Learners were Hispanic. The next largest group in Texas was Asian (5.4%), White (2.8%), and then Black (1.5%). From the 2005-06 school year to the 2015-2016 school year, a total of 778,685 students have enrolled in Texas which means that English Language Learners have accounted for 34.56% of the student population growth during this time span (Texas Education Agency, 2016a).

With respect to the population of students and state of interest in this investigation, a total of 5,359,127 students were enrolled in elementary and secondary public schools in the 2016-2017 school year in Texas. Of these students, 1,010,596 individuals were identified as being an English Language Learner, which represented about 18.86% of the Texas public school population (Texas Education Agency, 2016a). With a large percentage of the United States and Texas population being an English Language Learner and that population increasing every year, it is imperative that empirical data be available about the relationships between student ethnicity/race and reading achievement.

The group of students who are English Language Learners warrant interest because of their documented achievement gaps. Students who are English Language Learners have lower academic achievement scores than do their peers (Abedi, 2002, 2010). English Language Learners score lower on both standardized and non-standardized tests than do students who are native-English speaking students.

Review of the Literature on English Language Learners and Gender

English Language Learners are students whose native language is one other than English. The population of students in the United States who are English Language Learners has increased by 4.4 million students, or 0.5% over the last 10 years (National Center for Education Statistics, 2015a). This population has steadily increased over the last decade and is projected to continue to grow. Specifically in reference to Texas, the Texas Education Agency (2016a) reported that the enrollment of English Language Learners increased by 269,091, or 37.8%, between the 2005-2006 and the 2015-2016 school years. In the 2005-2006 school year, 15.7% of the population were identified as English Language Learners whereas during the 2015-2016 school 18.5 % of the students were identified English Language Learners. Given this increase in the English Language Learner population in Texas in recent years, educational leaders need to know how to address their unique academic needs. Though non-native English speakers have been present in public schools for decades, with the addition of standardized testing and accountability, a strong emphasis has been placed on all students meeting expectations.

In a recent National Assessment of Educational Progress report, Fry (2007) analyzed the results from the 2005 mathematics and reading assessments given to a random sample of Grade 4 and 8 students in the United States. In this national sample, English Language Learners had statistically significantly lower mathematics and reading assessments than their peers in Grade 4. These achievement gaps increased from Grade 4 to Grade 8 for English Language Learners.

More recently, Polat, Zarecky-Hodge, and Schreiber (2016) analyzed data from the National Assessment of Educational Progress exams for students in Grade 4 and

Grade 8. In their investigation, they compared the reading and mathematics performance of English Language Learners to their native-English speaking peers from 2003 through 2011. In their analyses, native-English speaking boys and girls had statistically significantly higher reading and mathematics test scores than their English Language Learner peers. Similar to previous research, Polat et al. established that the achievement gaps in reading and in mathematics was steady or slightly widening over the time period in their study.

With reference to student gender, Wei, Liu, and Barnard-Brak (2015) reviewed data on 8,503 participants in the Early Childhood Longitudinal Study-Kindergarten cohort. These data were derived from a national longitudinal study with a sample of over 20,000 participants who were in kindergarten during the 1998-1999 school year. Wei et al. documented that girls had an initial score higher than boys and a greater growth rate in reading than boys. Other researchers (e.g., Denton & West, 2002; Marks, 2008; Martinez, Slate, & Martinez-Garcia, 2014) have also provided evidence that girls outperform boys in reading. Due to the early advantages that girls have, they continue to outperform boys throughout their educational careers. In regard to mathematics, boys outperform girls in the later grades, but this situation is not due to the early advancement of boys as is the case for reading for girls (Wei et al., 2015).

In a statewide Texas investigation, Rojas-LeBouef (2010) explored the extent to which achievement gaps persisted in Texas for Grade 5 students in reading and mathematics over a 16-year period from 1993 until 2009. During that time span, the Texas Education Agency transitioned from the Texas Assessment of Academic Skills to the Texas Assessment of Knowledge and Skills, thus resulting in some years not having

compatible tests. Even so, in all instances, English Language Learners had statistically significantly lower average reading and mathematics test scores than Hispanic non-English Language Learners. Despite the school reform efforts implemented because of the mandates of No Child Left Behind Act (2001), students who were English Language Learners continue to obtain lower test scores than their White peers. Part of this separation of achievement is due to the “White flight” or decreased enrollment of Whites in public schools (Reber, 2005, p. 560). This movement of White students to public school has increased the achievement gap within the public and private schools (Kahlenberg, 2001; Reber, 2005).

In an empirical statewide analysis in Texas, Combs et al. (2010) examined gender differences in college readiness in reading, in mathematics, and in both subject areas. They analyzed data from the Scholastic Assessment Test (SAT) and the American College Test (ACT) for the 2005-2006 and the 2006-2007 school years. In their Texas statewide investigation, they documented that girls had statistically significantly better college readiness skills in reading and in both subjects, whereas boys had statistically significantly better mathematics college readiness skills. In their study, slightly more than one third, 38.76%, of boys were college-ready reading, compared to over half, 51.01%, of girls who were college-ready in reading. Statistically significant differences were also determined by Combs et al. (2010) between boys and girls in their percentages of taking the SAT or ACT. In their investigation, 66.7% of girls took the ACT or SAT compared to a smaller percentage, 59.7%, of boys who took the ACT or the SAT.

In a similar study in Texas, Vijil, Combs, and Slate (2012) compared the science passing rates of boys and girls. They used the Texas state-mandated science assessment

for students in Grades 5, 8, and 11 for three consecutive school years. In each of the three grade levels and in each of the three school years, boys had statistically significantly higher passing rates on the science exam than did girls. Given that the need for science related jobs has increased, it is imperative to address the gender gap to ensure equality for all (Morris, Slate, & Moore, 2015).

In another recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 boys and girls. McGown (2016) established that girls had statistically significantly higher reading scores than boys in each of the three school years. Grade 3 girls outscored boys on each of the three Reading Reporting Categories and on the Level II Final Satisfactory Performance Standard in all four school years. Effect sizes for her statistically significant results ranged from trivial to moderate.

In a similar study in Texas, Anderson, Moore, and Slate (2017) examined the State of Texas Assessment of Academic Readiness Mathematics and Science scores for Grade 8 boys and girls for four consecutive school years. Congruent with previous researchers, boys statistically significantly outperformed girls in both mathematics and in science, with one exception, where in one school year, boys and girls had similar mathematics scores. With the underrepresentation of girls in Science, Technology, Engineering, and Mathematics (STEM) careers, changes to the practices of teachers and educational leaders is needed (Morris et al., 2015).

Specifically in reference to English Language Learners, Rojas and Iglesias (2013) collected narrative language samples over a 3-year period, including six samples between kindergarten and second grade. Rojas and Iglesias (2013) documented that girls

outperformed boys in their growth rates across outcome measures throughout the duration of the study. This disparity was present in both English and in Spanish, and could contribute to the achievement gap between boys and girls.

Review of the Literature

For this journal-ready dissertation, the literature regarding English Language Learner's reading performance and degree of economic status, ethnicity/race, and gender for Texas elementary school students were examined. Words and phrases that were used in the search for relevant literature were: English Language Learner, achievement gap, ethnicity, race, gender, poverty, socioeconomic status, reading, English Learner, and student. Searches were conducted through the EBSCO Host database for academic journals that contained scholarly peer reviewed articles.

A key word search for "English Language Learner" generated 3,478 results and by limiting the range from 2007 to 2017 and including the word "ethnicity" and "achievement" the search was limited to 13. Then, the term "ethnicity" was changed to "socioeconomic status" which derived 7 results. Finally, the term "socioeconomic status" was changed to "gender" which provided 14 results.

Statement of the Problem

The population of English Language Learners has increased almost 3% or 280,000 students over the last 10 years in Texas (Texas Education Agency, 2016a) and is projected to continue to increase. As with the increase in English Language Learners, in the United States, 51% of students in public elementary, middle, and secondary schools were economically disadvantaged in 2013 (National Center for Education Statistics, 2016b). In Texas, in the 2015-2016 school year, 58.93% of students were classified as

economically disadvantaged, with 42.82% being eligible for free meals and 5.98% being eligible for reduced price meals (Texas Education Agency, 2016a). With increased percentages of English Language Learners and students in poverty in the educational system, educators have to accommodate for the limited experiences and resources of these students (Reardon, 2012). Students who are economically disadvantaged do not have the same academic skills as students who are not economically disadvantaged (Lee & Slate, 2014; Reardon, Valentino, & Shores, 2012; Shah et al., 2012; Wright & Slate, 2015) nor do students with limited English exposure. With a documented increase in the numbers of English Language Learners, educators need additional resources to meet the academic and linguistic needs of their students to close the achievement gap that has increased in recent years (Frazier, 2013; Rodriguez & Slate, 2015). As such, the combination of English Language Learners and students in poverty needs to be addressed.

With the ever-growing population in the United States coming from non-White individuals, educators need to address achievement gaps that continue to be present. According to the National Center for Education Statistics (2015b), the percentage of White students enrolled in public elementary and secondary school will decrease from 59% in 2002 to 46% in 2024. Under that same timeframe, the percentage of Hispanic students will increase from 18% to 29% and the percentage of Black students will decrease from 17% to 15%. In addition to the achievement gap within the United States between different ethnic/racial groups of students, in 2012, the United States ranked 35th in civilized countries according to the Programme for International Student Assessment

in comparison to other civilized countries, which promoted several changes to the United States educational system.

Purpose of the Study

The purpose of this journal-ready dissertation was to examine the degree to which differences were present in the reading achievement of Grade 3 English Language Learners by their economic status, ethnicity/race, and gender. Specifically analyzed in the first investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners who were Not Poor (i.e., did not qualify for the reduced or free lunch program), for English Language Learners who were Moderately Poor (i.e., qualified for the reduced lunch program), and for English Language Learners who were Extremely Poor (i.e., qualified for the free lunch program). In the second investigation, the current Texas state-mandated assessment in reading was examined to determine the extent to which test scores differed by the ethnicity/race (i.e., Asian, Black, Hispanic, and White) of English Language Learners. The purpose of the third investigation was to ascertain the degree to which reading scores were different between English Language Learner boys and girls. By examining three years of Texas statewide data in each article, the degree to which trends were present in the reading performance by the economic status, ethnicity/race, and gender of Grade 3 English Language Learners was determined.

Significance of the Study

Researchers (e.g., Bohrnstedt et al., 2015; Harvey et al., 2013; McGown, 2016) have conducted extensive analyses on the relationship between ethnicity/race and student academic performance. In Texas, the previously state-mandated assessment has been

examined in numerous studies with respect to achievement gaps. In only one recent investigation (McGown, 2016), however, was the recently implemented State of Texas Assessment of Academic Readiness examined with respect to the presence of achievement gaps in reading. McGown (2016), however, did not analyze the test scores of English Language Learners. Findings of this study add additional evidence regarding the presence of achievement gaps on the State of Texas Assessment of Academic Readiness.

As noted, no empirical investigations were located in which the reading performance of English Language Learners on the new state-mandated assessment in Texas was examined. Although McGown (2016) did analyze the reading performance of Grade 3 students by their ethnicity/race, she did not examine the reading performance of English Language Learners by their ethnicity/race. As such, results from this multiyear investigation fill in a void or gap in the extant literature.

Procedures

An application was submitted to the Sam Houston State University Institutional Review Board once approval to conduct research had been granted by this researcher's doctoral committee. After receiving approval from the Sam Houston State University Institutional Review Board, archival data for the Grade 3 State of Texas Assessment of Academic Readiness Reading tests for the 2012-2013, 2013-2014, and 2014-2015 school years were analyzed. These data had already been obtained through submission and fulfillment of a previous Public Information Request form. The Public Information Request form was submitted to obtain data analyzed by McGown (2016) in her doctoral

dissertation. The data that were used herein on English Language Learners had not previously been analyzed.

Definition of Terms

To assist the reader in understanding terms used in this journal-ready dissertation, the following words and phrases are defined.

Academic Achievement

For the purposes of this study, academic achievement is defined by scores on the State of Texas Assessment of Academic Readiness (STAAR) Reading test.

Achievement Gap

The achievement gap commonly refers to the differences on success rates for Black and Hispanic students and/or students in poverty when compared to their White and Asian peers and/or students who are not poor on both state and national standardized tests (National Education Association, 2015).

Asian

Asian is defined as any individual “having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam” (Public Education Information Management System Data Standards, 2013-2014, p. 5).

Black

Black refers to any individual “having origins in any of the Black racial groups of Africa” (Public Education Information Management System Data Standards, 2013-2014, p. 5).

Economically Disadvantaged

Students who are determined to be economically disadvantaged are eligible for free or reduced-price lunch or other public assistance and have a family income of 131% or greater of the federal poverty line (Texas Education Agency, 2015a).

English Language Learner

English Language Learners are students who are “in the process of acquiring English and has another language as the first native language” (Chapter 89.1203 of Texas Education Code).

Ethnicity/Race

The United States Department of Education issued new guidelines in 2009 for the collection of data on race and ethnicity in public schools. The new guidelines required a two-part question and allow students to be identified by both ethnic and racial classifications. Students and staff members were provided two choices for ethnicity: Hispanic/Latino or Not Hispanic/Latino. With respect to race, individuals were provided five options, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White (Texas Education Agency Appendix F, 2009, p. 4).

Hispanic

Hispanic refers to any individual of “Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race” (Public Education Information Management System Data Standards, 2013-2014, p. 5).

Level I Unsatisfactory Academic Performance

The term of Level I Unsatisfactory Academic Performance is assigned to students who are not prepared for success in the next grade level and who will require extensive intervention to succeed academically (STAAR Performance Labels and Policy Definitions, 2013).

Level II Satisfactory Academic Performance

Level II Satisfactory Academic Performance refers to the label given to students who met the state passing standard and who are sufficiently prepared for the next grade level although they may require short-term intervention (STAAR Performance Labels and Policy Definitions, 2013). As the STAAR has been recently implemented, the Texas Education Agency has provided different phase in performance levels. During the 2012-2013, 2013-2014, and 2014-2015 school years, the Phase-in 1 standard was in effect. For the 2015-2016 school year, the Phase-in 2 standard was in effect. During the 2017-2018 school, the Phase-in 3 standard, or the Final Recommended score will be used for Level II performance (Texas Education Agency, 2015c).

Level III Advanced Performance

Level III Advanced Performance is the label assigned to students who are well-prepared for the next grade level and who have a high likelihood of success with little intervention (STAAR Performance Labels and Policy Definitions, 2013).

Moderately Poor

For the purpose of this study, students who were eligible for the reduced lunch program will be referred to as Moderately Poor. As such, the family income of these students will be 131% to 185% of the federal poverty guideline (Texas Education

Agency, 2015a). The federal poverty guideline depicts the amount of money that household can earn annually. For a 1-person household, the federal poverty annual income had to be less than 11,880 for 2016. For each person in the household, an amount of \$4,160 was added to the threshold (Burwell, 2016).

Not Poor

For the purpose of this study, students whose family income was 186% or greater and were not eligible for either a reduced or free lunch program were referred to as Not Poor (Texas Education Agency, 2015a). The federal poverty guideline depicts the amount of money that household can earn annually. For a 1-person household, the federal poverty annual income had to be less than \$11,880 for 2016 (Burwell, 2016).

Reading Skills

For this study, reading skills are measured using the reporting categories for the State of Texas Assessment of Academic Readiness (STAAR) Reading exam in Grades 3.

Reporting Category 1

For the STAAR exams analyzed, Reporting Category 1 was a measure of a student's ability to understand and to analyze a variety of texts across reading genres. Reading Reporting Category 1 contains six multiple-choice items (Texas Education Agency Student Assessment Division STAAR Information Booklet, 2011, pp. 2-5).

Reporting Category 2

For the STAAR exams analyzed, Reporting Category 2 was a measure of the student's ability to understand and to analyze literary texts. The Reading Reporting Category 2 consists of 18 multiple-choice items (Texas Education Agency Student Assessment Division STAAR Information Booklet, 2011, pp. 2-5).

Reporting Category 3

For the STAAR exams analyzed, Reporting Category 3 was the measure of the student's ability to understand and to analyze informational texts. Reading Reporting Category 3 is comprised of 16 multiple-choice items (Texas Education Agency Student Assessment Division STAAR Information Booklet, 2011, pp. 2-5).

State of Texas Assessment of Academic Readiness (STAAR)

The STAAR exam, first administered in the 2010-2011 school year, is the state-mandated standardized test for academic skills in Texas. The STAAR examination is administered to students in Grade 3 in core subjects such as Reading. To ensure a smooth transition between the previous state-mandated assessment, the Texas Education Agency phased in the STAAR exam over several school years. For each examination, the Texas Education Agency provides a blueprint to allow teachers guidance in their pedagogy. In the blueprint, two types of standards are discussed: readiness and supporting. Readiness standards are Texas Essential Knowledge Standards that will be tested every year whereas supporting standards are Texas Essential Knowledge Standards that will be tested every other year (STAAR Performance Labels and Policy Definitions, 2013).

According to the Texas Education Agency, the STAAR Reading test for Grade 3 students is comprised of three reporting categories: (a) Understanding across genres; (b) Understanding/Analysis of literary texts; and (c) Understanding/Analysis of informational texts. Items on the STAAR Reading test to cover both readiness and supporting standards, which teachers use to guide instruction. Students have a maximum of four hours to complete the exam which includes 34 multiple-choice questions.

Very Poor

For the purpose of this study, students who were eligible for the free lunch program will be referred to as Very Poor. To be regarded as Very Poor, the student's family will have a family income of 130% or less of the federal poverty guideline (Texas Education Agency, 2015a). For a 1-person household, the federal poverty annual income had to be less than 11,880 for 2016. For each person in the household, an amount of \$4,160 was added to the threshold (Burwell, 2016).

White

White refers to any person "having origins in any of the original peoples of Europe, the Middle East, or North Africa" (Public Education Information Management System Data Standards, 2013-2014, p. 5).

Delimitations

Only student achievement in reading as measured by the current Texas state-mandated assessment, the State of Texas Assessment of Academic Readiness, in Grade 3 was analyzed. A second delimitation was that only three years of data (i.e., 2012-2013, 2013-2014, and 2014-2015) were analyzed, thus restricting generalizability of the results to these three school years. A third delimitation was that the definition of economic status was exclusive to the federal definition of free and reduced lunch. A fourth delimitation was a focus on ethnicity/race that were limited to the four major ethnic/racial groups: Asian, Black, Hispanic, and White, of students in Texas. The fifth and final delimitation was a focus solely on English Language Learners as defined by the Texas Education Agency.

Limitations

For the purpose of this journal-ready dissertation, only quantitative reading assessment data on Texas Grade 3 English Language Learners were analyzed. Due to the high stakes nature of state standardized testing, test anxiety is a legitimate threat to the internal validity of the data acquired, assuming that students' anxiety could be reflected in achievement results instead of their true mastery of the content and skills (Onwuegbuzie, 2003). Additionally, the independent variables (i.e., economic status, ethnicity/race, and gender) and the dependent variable (i.e., academic achievement in reading) were not controlled due to the causal-comparative nature of the study (Johnson & Christensen, 2012). Furthermore, other variables could also contribute to any differences that were obtained in reading achievement by economic status, gender, or ethnicity/race. For all three investigations in this journal-ready dissertation, data on only English Language Learners were analyzed.

Assumptions

For this journal-ready dissertation, the assumption was made that the achievement data and the economic status, ethnicity/race, and gender in the Public Education Information Management System were accurately reported to the state. Furthermore, the consistency in which Texas elementary schools collect and report student data was assumed to be accurate and consistent statewide. A major assumption was that students who were identified as English Language Learners were accurately identified. A final assumption was that the validity and consistency in which the STAAR Reading scores were collected from elementary schools across the state of Texas adhered to the

requirements outlined by the state. As such, any deviations from these assumptions may result in inaccurate data and, as a consequence, yield incorrect findings.

Organization of the Study

This journal-ready dissertation consists of three independent, empirical research articles. In the first research article, the extent to which reading achievement differed by the economic status of English Language Learners will be determined for three school years (i.e., 2012-2013, 2013-2014, 2014-2015). In the second research article, the degree to which reading achievement differed by the ethnicity/race of English Language Learners was examined for three school years (i.e., 2012-2013, 2013-2014, 2014-2015). In the third and final research study, the extent to which English Language Learner boys and English Language Learner girls differed in their reading achievement across three school years was addressed.

This journal-ready dissertation contains five chapters. Chapter I includes the background of the study, statement of the problem, purpose of the study, significance of the study, research questions, definitions of terms, method, assumptions, delimitations, and limitations. In Chapter II, the first investigation discussed the relationship of economic status to the reading achievement of Grade 3 English Language Learners. Chapter III contains an analysis of the relationship of English Language Learner ethnicity/race with student reading achievement. Chapter IV comprises an analysis of the reading achievement of English Language Learner boys and girls. Finally, in Chapter V, an overview of the results interpreted in the three research articles was provided. Implications for future policy and practice along with recommendations for future research obtained from the three research articles were provided.

CHAPTER II
DIFFERENCES IN THE READING ACHIEVEMENT BY THE ECONOMIC STATUS
OF TEXAS GRADE 3 ENGLISH LANGUAGE LEARNERS: A MULTIYEAR
STATEWIDE STUDY

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners who were Not Poor (i.e., did not qualify for the reduced or free lunch program), English Language Learners who were Moderately Poor (i.e., qualified for the reduced lunch program), and English Language Learners who were Extremely Poor (i.e., qualified for the free lunch program). In all cases, reading achievement was lowest for English Language Learners who were Very Poor, followed by English Language Learners who were Moderately Poor. English Language Learners who were Not Poor had the highest reading performance in all four school years. Implications for policy and practice, as well as recommendations for future research, are provided.

Keywords: English Language Learners, Economic Status, Achievement Gap, Texas, Economically Disadvantaged, STAAR Reading tests

DIFFERENCES IN READING ACHIEVEMENT BY THE ECONOMIC STATUS OF
TEXAS GRADE 3 ENGLISH LANGUAGE LEARNERS: A MULTIYEAR
STATEWIDE STUDY

According to the Coleman Report (1966), the most definitive factor that affected student academic achievement was the economic status of the household in which the student lived. Poverty influences the prior knowledge that students have when they enter school along with their reading skills (Wright, Slate, & Moore, 2016). Without prior knowledge gained by experiences, students in poverty are at a disadvantage not only when they enter school but throughout their educational experience. Students in poverty come to school with a lack of resources such as emotional, relational, physical, and knowledge of informal or hidden rules (Lacour & Tissington, 2011). Poverty not only affects student academic achievement, but also increases the likelihood of students dropping out of school (Harding, 2003).

In a recent national study, Reardon (2013) compared the academic achievement of students in poverty with the academic achievement of students who were privileged. In his examination of academic achievement for over five decades, Reardon established that the achievement gap between these two groups of students had increased from 0.9 SD to 1.25 SDs from 1950 through 2000. The achievement gaps that were present among ethnic/racial groups did not decrease as the students transitioned from the first grade to middle school grades, but rather continued to widen over time. Household experiences, as well as the experiences students have prior to and while in school, affect the learning that occurs inside of the classroom. Reardon (2013) contended that school systems and

policymakers need to work together to build early interventions during the primary years in school to address these achievement gaps.

In a recent study of school economic composition and student achievement, Palardy (2013) analyzed the relationships of high school student economic status with student academic success. Students who were enrolled in a school with a higher economic status were 68% more likely to attend a 4-year institution than were students who were enrolled in a school with a lower economic status. Palardy (2013) suggested that mediating factors such as emphasis on academics in the schools and integration of economic levels (i.e., Not Poor, Moderately Poor, Very Poor) within the school may address the negative consequences of attending a low socioeconomic school.

In Texas, the state of interest in this investigation, Wright, Slate, and Moore (2016) examined the reading skills of high school students as a function of student economic status. They analyzed data from the 2003-2004 through the 2011-2012 school years from the Texas Assessment of Knowledge and Skills Exit Level English Language Arts exam. Wright et al. (2016) documented the presence of statistically significantly lower reading skills for students in poverty compared to their more economically privileged peers. In their 8-year analysis of Texas statewide data, they established the presence of moderate effect sizes regarding poverty and student reading performance.

In another recent investigation conducted in Texas, Lee and Slate (2014) examined advanced levels of academic achievement by student economic status. In their analyses of the Exit-Level Mathematics and English Language Arts test scores on the state-mandated assessment, statistically significantly lower percentages of students who were economically disadvantaged met the Commended Performance standard than did

students who were not economically disadvantaged. In their study, students in poverty statistically significantly underperformed their counterparts in both reading and mathematics. Of note in their investigation was that 43% of their sample were economically disadvantaged. According to the Texas Education Agency (2016), the statewide percentage of public school students who are economically disadvantaged increased from 55.5% in the 2005-2006 school year to 58.9% in the 2015-2016 school year. The implications of these high percentages of students in poverty include limiting their access to secondary education and subsequent effects on employment.

In another recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 students. In her research, three tiers of poverty classifications were present: Not Poor, Moderately Poor, and Extremely Poor. Students classified as Extremely Poor qualified for the federal free lunch program whereas students classified as Moderately Poor qualified for the federal reduced price meals program. Students in the Not Poor group did not qualify for either federal meal program. McGown (2016) established the presence of a clear stair-step of achievement (Carpenter, Ramirez, & Severns, 2006) in that students who were Extremely Poor had the lowest reading performance in all three school years. Students who were Moderately Poor had the next lowest reading performance in all three school years. Consistent with the extant literature, students who were not in poverty had the highest levels of reading performance.

In an international study, Caro, McDonald, and Willms (2009) analyzed data from the Canadian National Longitudinal Study of Children and Youth on the relationship of

economic status with student age and academic performance. In particular, they focused on mathematics achievement. Caro et al. (2009) determined that the achievement gap was twice as large at 12 years of age than at 7 years of age. As students mature, the effects of their family's economic status continue to influence their achievement in school.

With respect to the population of interest to this investigation, English Language Learners, the percentage of students in public schools in the United States who were English Language Learners was 9.3% in the 2013-2014 school year. This percentage reflected an increase of 0.5% from the 2003-2004 school year (National Center for Education Statistics, 2016). By 2025, the National Clearinghouse for English Language Acquisition (2006) estimated that 25% of the student population in the United States would be English Language Learners. The percentage of English Language Learners in Texas increased from 15.7% in the 2005-2006 school year to 19.55% in the 2015-2016 school year (Texas Education Agency, 2016).

With respect to the state of interest in this investigation, Texas, a total of 5,359,127 students were enrolled in elementary and secondary public schools during the 2016-2017 school year. Of those students, 1,010,596 individuals were identified as being an English Language Learner, which represented about 18.86% of the Texas public school population (Texas Education Agency, 2016). With a large percentage of the United States and Texas population being an English Language Learner and that population increasing every year, it is imperative that empirical data be available about the relationships between student economic status and reading achievement.

The group of students who are English Language Learners warrant interest because of their documented achievement gaps. Students who are English Language Learners have lower academic achievement scores than do their peers (Abedi, 2002, 2010). English Language Learners score lower on both standardized and non-standardized tests than do students who are native-English speaking students.

In a recent Texas investigation, Flores, Batalova, and Fix (2012) compared cohorts of students and followed from Grade 1 through high school graduation. They first separated the students into two groups: students who ever English Language Learners and those students who were never English Language Learners. From there, Flores et al. (2012) further delineated the data in regard to students who graduated on time or students who graduated late. A major finding in the analysis was that the majority of students who graduated on time achieved the basic proficiency level on both the reading and mathematics exams, but had much lower success on the Commended Performance level. Flores et al. (2012) determined student graduation from high school was more highly correlated with race/ethnicity than with English Language Learner status. Consistent with previous research (Balfanz, 2013), poverty and access to college ready academic opportunities were among the most influential factors that determined whether or not students enrolled in a postsecondary setting, regardless of their English Language Learner status (Flores et al., 2012).

Statement of the Problem

The population of English Language Learners has increased almost 3% or 280,000 students over the last 10 years in Texas (Texas Education Agency, 2016) and is projected to continue to increase. As with the increase in English Language Learners, in

the United States, 51% of students in public primary and secondary schools were economically disadvantaged in 2013 (National Center for Education Statistics, 2016). In Texas, in the 2015-2016 school year, 58.93% of students were classified as economically disadvantaged, with 42.82% being eligible for free meals and 5.98% being eligible for reduced price meals (Texas Education Agency, 2016). With increased percentages of English Language Learners and students in poverty in the educational system, educators have to accommodate for the limited experiences and resources of these students (Reardon, 2013). Students who are economically disadvantaged do not have the same academic skills as students who are not economically disadvantaged (Lee & Slate, 2014; Reardon, Valentino, & Shores, 2012; Shah et al., 2012; Wright & Slate, 2015) nor do students with limited English exposure. With this increase in the numbers of English Language Learners, educators need additional resources to meet the academic and linguistic needs of their students to close the achievement gap that has increased in recent years (Frazier, 2013; Rodriguez & Slate, 2015). As such, the combination of English Language Learners and students in poverty needs to be addressed.

Purpose of the Study

The purpose of this study was to examine the degree to which differences were present in the reading achievement of Grade 3 English Language Learners by their economic status. Specifically analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners who were Not Poor (i.e., did not qualify for the reduced or free lunch program), for English Language Learners who were Moderately Poor (i.e., qualified for the reduced lunch program), and for English Language Learners who were

Extremely Poor (i.e., qualified for the free lunch program). By examining three years of Texas statewide data, the degree to which trends were present in reading performance by the economic status of Grade 3 English Language Learners was determined.

Significance of the Study

Educational leaders are held accountable for student performance on standardized assessments. In Texas, in particular, educational leaders are held accountable publicly for the academic performance of their students, as an overall group, as well as for subgroups (e.g., English Language Learners, economically disadvantaged). Given the presence of continued achievement gaps by ethnicity/race and by economic status, educational leaders need to examine data on an ongoing basis to determine the degree to which any existing achievement gaps may have changed. In Texas, the State of Texas Assessment of Academic Readiness recently replaced the former state-mandated assessment, the Texas Assessment of Knowledge and Skills. In an exhaustive review of the literature, only one study was located in which data from the new Texas state-mandated assessment were analyzed (McGown, 2016). As such, results from this article provide important data regarding the presence of achievement gaps on the new assessment in Texas.

Another element of importance in this investigation is the manner in which student economic status was addressed. Typically, researchers examine student economic status, as students are either economically disadvantaged or not economically disadvantaged. In this empirical investigation, however, students who were determined to be economically disadvantaged were separated into two categories: those students who qualified for the reduced price lunch program and those students who qualified for the

free lunch program. Through this process, the degree to which levels of poverty were related to student performance could be ascertained. Accordingly, a more nuanced investigation of the relationship of student poverty with reading achievement was conducted than is typically conducted when comparisons are made solely between students who are on the reduced/free lunch program and students who do not qualify for the reduced/free price lunch program.

With the abundance of research (e.g., Reardon, 2013, Wright & Slate, 2015) in which students in poverty have statistically significantly lower academic achievement than students who are not poor, the high percentages of Texas students who live in poverty are a concern. In this investigation, results from the analyses of Grade 3 English Learners on the State of Texas Assessment of Academic Readiness Reading exam can provide relevant information to educational leaders and policymakers regarding the relationship of student economic status to their present level of achievement.

Research Questions

The research questions investigated in this study were: (a) What is the difference on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Satisfactory) for Grade 3 English Language Learners as a function of their economic status (i.e., Not Poor, Moderately Poor, Very Poor)?; (b) What is the difference on the STAAR Reading Level III Academic Performance measures for Grade 3 English Language Learners as a function of their economic status?; (c) What is the difference on the STAAR Reading Reporting Category 1: Understanding Across Genres for Grade 3 English Language Learners as a function of their economic status?; (d) What is the difference on the STAAR Reading Reporting Category 2: Understanding/Analysis

of Literary Texts for Grade 3 English Language Learners as a function of their economic status?; (e) What is the difference on the STAAR Reading Reporting Category 3: Understanding/Analysis of Informational Texts for Grade 3 English Language Learners by their economic status?; (f) What trend is present over time in the STAAR Reading Level II Academic Performance measures for Grade 3 English Language Learners by their economic status?; and (g) What trend is present in the STAAR Reading Reporting Categories scores for Grade 3 English Language Learners by their economic status? The first five research questions were repeated for the 2012-2013, 2013-2014, and 2014-2015 school years whereas the last two research questions were comparisons across these three school years. As such, a total of 17 research questions were present in this empirical investigation.

Method

Research Design

For this investigation, the research design that was present was a causal-comparative investigation (Johnson & Christensen, 2012). Archival data were analyzed in this multiyear investigation. A causal-comparative research design was present because the independent variable of economic status had already occurred, along with the test scores of Grade 3 English Language Learners on the State of Texas Assessment of Academic Readiness Reading exams. When archival data are analyzed, neither the independent variable nor the dependent variables can be manipulated (Johnson & Christensen, 2012). Moreover, extraneous variables cannot be controlled.

Participants and Instrumentation

Participants in this study were all Grade 3 English Language Learners who completed the State of Texas Assessment of Academic Readiness Reading exam in the 2012-2013, 2013-2014, or 2014-2015 school years. English Language Learners are students who are “in the process of acquiring English and has another language as the first native language” (Chapter 89.1203 of Texas Education Code).

The level of economic status (i.e., Not Poor, Moderately Poor, and Very Poor) for each student was provided by the Texas Education Agency. The Texas Education Agency (2015) defined economically disadvantaged as students being eligible for the free or reduced-price lunch program or other public assistance. For the purpose of this study, students were categorized into three groups of students: Very Poor, Moderately Poor and Not Poor. Students who were eligible for the free lunch program were regarded as Very Poor and had a family income of 130% or less of the federal poverty line. Those students who were eligible for the reduced lunch program were referred to as Moderately Poor and had a family income of 131% to 185% of the federal poverty guideline. Students who did not qualify for either the reduced-price meals or the free lunch program were placed in the Not Poor group. For a 1-person household, the federal poverty annual income had to be less than \$11,880 in 2016. For each person in the household, an amount of \$4,160 was added to the threshold (Burwell, 2016).

During the 2011-2012 school year, Texas changed the mandatory standardized achievement test from the Texas Assessment of Knowledge and Skills to the State of Texas Assessment of Academic Readiness. With this change, Texas changed from assessing students on basic skills to assessing students on the application of knowledge

and skills (Texas Education Agency, 2016). Students are assessed in reading in Grades 3 through 8.

On each assessment, test creators use the blueprint to determine which Texas Essential Knowledge and Standards are tested each year. Texas Essential Knowledge and Skills are further delineated into Readiness Standards and Supporting Standards. Readiness Standards vary for each grade level and content area but are most critical for students to be successful in the current grade level and to be prepared for the next course (Texas Education Agency, 2016). Supporting Standards are concepts and content that are newly introduced in the current grade level and prepare students for the next grade level but not critical for students to master the current grade level (Texas Education Agency, 2016).

The Texas Education Agency defines reading skills across three reporting categories of the State of Texas Assessment of Academic Readiness Reading exam in Grade 3. Students' ability to demonstrate basic reading understanding across genres (i.e., fiction, poetry, drama, literary non-fiction, expository, persuasive) by determining "the meaning of grade-level academic words in English, using context to determine the meaning of unfamiliar words, and comparing and contrasting themes or moral lessons" is assessed in Reporting Category 1 (Texas Education Agency Student Assessment Division, 2011, para. 3). In Reporting Category 2, students must demonstrate the ability "to comprehend and analyze literary texts (i.e., fiction, poetry, drama, literary nonfiction) for elements such as foreshadowing, character development, sensory detail, and figurative language" (Texas Education Agency Student Assessment Division, 2011, para. 4). For Reporting Category 3, students must be able "to comprehend and analyze

informational texts (i.e., expository, persuasive) by demonstrating the ability to summarize the main idea and supporting details, analyze organizational patterns and text features, and make logical connections between ideas and across texts” (Texas Education Agency Student Assessment Division, 2011, para. 5). To that end, questions remain regarding the degree of literacy students have and the extent to which disparities exist by economic status.

The Texas Education Agency has created three levels of performance: Level 1: Unsatisfactory Academic Performance, Level 2: Satisfactory Academic Performance, and Level 3: Advanced Academic Performance (Texas Education Agency, 2013). As the STAAR Reading exam was new, the Texas Education Agency gradually increased the performance standard (i.e., Phase-in 1, Phase-in 2, Final Satisfactory). To ensure score validities and score reliabilities, the Texas Technical Advisory Committee conducted numerous studies. External studies were compared to the SAT and ACT as well as vertical scale studies that allowed a comparison of student performance across grades within a content area (Texas Education Agency, 2013). Readers are directed to the Texas Education Agency website for further information regarding score validities and score reliabilities for the STAAR Reading assessments.

Results

To determine whether a difference was present in the Level II Phase-in 1, Phase-in 2, and Final Satisfactory performance standards by the degree of economic disadvantage for English Language Learners, Pearson chi-square procedures were performed. This statistical procedure was most appropriate to use because both the independent variable of economic status (i.e., Not Poor, Moderately Poor, and Very Poor)

and the STAAR Reading test dependent variables (i.e., met or did not meet standard) were categorical in nature and constituted frequency data. As such, the optimal inferential statistical procedure was the Pearson chi-square (Field, 2013). Given that the sample size was greater than five per cell, the assumptions were met.

Research Question One Results

Concerning the Level II Phase-in 1 Satisfactory Performance Standard by the economic status of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(2) = 709.58, p < .001$. The effect size, Cramer's V, was below small, .09 (Cohen, 1988). As revealed in Table 2.1, English Language Learners who were Very Poor had the lowest met standard rates on this Phase-in standard. A stair-step effect (Carpenter, Ramirez, & Severns, 2006) was observed, with the Not Poor group having the highest met standard rates at 78.3%, followed by the Moderately Poor group at 74.2%, and then the Not Poor group at 66.1%.

 Insert Table 2.1 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(2) = 803.32, p < .001$, and yielded an effect size, Cramer's V, that was small, .10 (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. English Language Learners who were Not Poor had the highest met standard, 76.1%, followed by the Moderately Poor group, 72.3%, and then the Very Poor group, 63.3%. Descriptive statistics for this analysis are contained in Table 2.1.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(2) = 737.78, p < .001$, Cramer's V of .09, a below small effect size (Cohen, 1988). Similar to the previous two school years, English Language Learners who were Not Poor had the highest percentage who met this Phase-in standard, 3.2% higher, than the Moderately Poor group, and 11.4% higher than the Very Poor group. Delineated in Table 2.1 are the descriptive statistics for this school year.

Concerning the Level II Phase-in 2 Satisfactory Performance Standard by the economic status of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(2) = 892.34, p < .001$. The effect size, Cramer's V, was small, .11 (Cohen, 1988). As revealed in Table 2.2, English Language Learners who were Very Poor had the lowest met standard rates on this Phase-in standard. A stair-step effect (Carpenter et al., 2006) was present, with the Not Poor group having the highest met standard rates, 14.8% higher, than the Very Poor group and 5.7% higher than the Moderately Poor group on the Phase-in 2 Satisfactory Performance Standard.

Insert Table 2.2 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(2) = 1008.10, p < .001$, and yielded an effect size, Cramer's V, .11, that was small (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. English Language Learners who were Not Poor had the highest met standard, 12.8% higher, than the Very Poor group and 3.8% higher than the Moderately

Poor group on the Phase-in 2 Satisfactory Performance Standard. Descriptive statistics for this analysis are contained in Table 2.2.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(2) = 1005.70, p < .001$. The effect size, Cramer's V, was small, .11 (Cohen, 1988). Similar to the previous two school years, English Language Learners who were Not Poor had the highest percentage who met this standard, 14.3% higher, than the Not Poor group and 5.4% higher than the Moderately Poor group. Delineated in Table 2.2 are the descriptive statistics for this school year.

Concerning the Level II Final Satisfactory Performance Standard by the economic status of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(2) = 803.39, p < .001$. The effect size, Cramer's V, was small, .10 (Cohen, 1988). As revealed in Table 2.3, English Language Learners who were Very Poor had the lowest met standard rates on this Phase-in standard. A stair-step effect (Carpenter et al., 2006) was observed, with the Not Poor group having the highest met standard, 12.8% higher, than the Very Poor group and 6.5% higher than the Moderately Poor group.

 Insert Table 2.3 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(2) = 928.16, p < .001$, and yielded an effect size, Cramer's V, .11, that was small (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. English Language Learners who were Not Poor had the highest met

standard achievement, 12.8% higher, than the Not Poor group and 3.8% higher than the Moderately Poor group on the Phase-in 2 Satisfactory Performance Standard.

Descriptive statistics for this analysis are contained in Table 2.3.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(2) = 1124.78$, $p < .001$, Cramer's V of .11, a small effect size (Cohen, 1988). Similar to the previous two school years, English Language Learners who were Not Poor had higher passing rates, 13.5% higher, than the Very Poor group and 6.2% higher than the Moderately Poor group. Delineated in Table 2.3 are the descriptive statistics for this school year.

Research Question Two Results

Concerning the Level III Advanced Academic Performance standard by the economic status of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(2) = 485.26$, $p < .001$. The effect size, Cramer's V, was below small, .08 (Cohen, 1988). As revealed in Table 2.4, English Language Learners who were Very Poor had the lowest met standard rates on this performance standard. A stair-step effect (Carpenter et al., 2006) was present, with the Not Poor group having the highest met standard rates, 6% higher, than the Very Poor group and 3.7% higher than the Moderately Poor group.

 Insert Table 2.4 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(2) = 343.79$, $p < .001$, and yielded an effect size, Cramer's V, .06, that was below small

(Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. English Language Learners who were Not Poor had the highest passing rates, 4.7% higher, than the Very Poor group and 3.2% higher than the Moderately Poor group on the Level III Advanced Academic Performance standard. Descriptive statistics for this analysis are contained in Table 2.4.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(2) = 794.72, p < .001$. The effect size, Cramer's V, .10, was small (Cohen, 1988). Similar to the previous two school years, English Language Learners who were Not Poor had the highest percentage who met this performance standard, 8.6% higher, than the Poor group and 4.3% higher than the Moderately Poor group. Delineated in Table 2.4 are the descriptive statistics for this school year.

Research Question Three Overall Results

Prior to conducting a multivariate analysis of variance (MANOVA) statistical procedure to answer the third research question, its underlying assumptions were checked. Specifically data normality, Box's Test of Equality of Covariance, and Levene's Test of Equality of Error Variances were examined. Although the assumptions for the MANOVA procedure were not all met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2013).

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98, p < .001$, partial $\eta^2 = .01$, in overall reading performance as a function of economic status. Using Cohen's (1988) criteria, the effect size was small. With respect to the 2013-2014 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98, p < .001$, partial $\eta^2 = .01$, in overall reading

performance as a function of economic status. Using Cohen's (1988) criteria, the effect size was small. Similarly for the 2014-2015 school year, the MANOVA revealed a statistically significant overall difference, Wilks' $\Lambda = .98$, $p < .001$, partial $\eta^2 = .01$, in reading performance as a function of economic status. Using Cohen's (1988) criteria, the effect size was small. Because the MANOVAs for each school year revealed the presence of statistically significant differences in aggregated reading performance by student economic status, univariate follow-up analysis of variance (ANOVA) procedures were calculated on each of the three STAAR Reading Reporting categories.

Research Question Three Reading Reporting: Category 1 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different by the economic status (i.e., Not Poor, Moderately Poor, and Very Poor) of English Language Learners, $F(2, 80929) = 698.41$, $p < .001$, $\eta^2 = .02$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures were then conducted to determine which pairs of economic groups had different raw scores. These post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 2.5, English Language Learners who were Not Poor had an average raw score that was 0.29 points higher than the average raw score of English Language Learners who were Moderately Poor and 0.60 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 1. English Language Learners who were Moderately Poor had an average raw score that was 0.31 points higher than the average raw score of English Language Learners who were Very Poor.

Insert Table 2.5 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 1 raw scores by the economic status of English Language Learners, $F(2, 83073) = 527.14, p < .001, \eta^2 = .01$, small effect size (Cohen, 1988). To determine which pairs of student groups differed from each other, Scheffe' post hoc procedures were again conducted. Statistically significant differences were present for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their economic status. English Language Learners who were Not Poor had an average raw score that was 0.22 points higher than the average raw score of English Language Learners who were Moderately Poor and 0.51 points higher than the average raw score of the English Language Learners who were Very Poor. English Language Learners who were Moderately Poor had an average raw score that was 0.29 points higher than the average raw score of English Language Learners who were Very Poor. Delineated in Table 2.5 are the descriptive statistics for this analysis.

Similarly for the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different by the economic status of English Language Learners, $F(2, 87837) = 381.78, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 2.5, English Language Learners who were Not Poor had an average raw score that was 0.18 points higher than

the average raw score of English Language Learners who were Moderately Poor and 0.40 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 1. English Language Learners who were Moderately Poor had an average raw score that was 0.22 points higher than the average raw score of the English Language Learners who were Very Poor.

Research Question Four Reading Reporting Category 2 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different by the economic status of English Language Learners, $F(2, 80929) = 438.45, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 2.6, English Language Learners who were Not Poor had an average raw score that was 0.34 points higher than the average raw score of English Language Learners who were Moderately Poor and 1.09 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 2. English Language Learners who were Moderately Poor had an average raw score that was 0.75 points higher than the average raw score of the English Language Learners who were Very Poor.

 Insert Table 2.6 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 2 raw scores by the economic status of English Language Learners, $F(2, 83073) = 719.40, p < .001, \eta^2 = .02$, small effect size

(Cohen, 1988). To determine which pairs of student groups differed from each other, Scheffe' post hoc procedures were again conducted. Statistically significant differences were present for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their economic status. English Language Learners who were Not Poor had an average raw score that was 0.49 points higher than the average raw score of English Language Learners who were Moderately Poor and 1.39 points higher than the average raw score of English Language Learners who were Very Poor. English Language Learners who were Moderately Poor had an average raw score that was 0.89 points higher than the average raw score of English Language Learners who were Very Poor. Delineated in Table 2.6 are the descriptive statistics for this analysis.

Similarly for the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different by the economic status of English Language Learners, $F(2, 87837) = 570.61, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 2.6, English Language Learners who were Not Poor had an average raw score that was 0.45 points higher than the average raw score of English Language Learners who were Moderately Poor and 1.20 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 2. English Language Learners who were Moderately Poor had an average raw score that was 0.42 points higher than the average raw score of the English Language Learners who were Very Poor.

Research Question Five Reading Reporting Category 3 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different by the economic status of English Language Learners, $F(2, 80929) = 548.47, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As presented in Table 2.7, English Language Learners who were Not Poor had an average raw score that was 0.44 points higher than the average raw score of English Language Learners who were Moderately Poor and 1.11 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 3. English Language Learners who were Moderately Poor had an average raw score that was 0.67 points higher than the average raw score of the English Language Learners who were Very Poor.

 Insert Table 2.7 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 3 raw scores by the economic status of English Language Learners, $F(2, 83073) = 529.88, p < .001, \eta^2 = .01$, small effect size (Cohen, 1988). Scheffe' post hoc procedures yielded statistically significant differences for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their economic status. English Language Learners who were Not Poor had an average raw score that was 0.36 points higher than the average raw score of English Language Learners who were

Moderately Poor and 1.04 points higher than the average raw score of English Language Learners who were Very Poor. English Language Learners who were Moderately Poor had an average raw score that was 0.68 points higher than the average raw score of the English Language Learners who were Very Poor. Delineated in Table 2.7 are the descriptive statistics for this analysis.

Similarly for the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different by the economic status of English Language Learners, $F(2, 87837) = 699.46, p < .001, \eta^2 = .02$, a small effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 2.7, English Language Learners who were Not Poor had an average raw score that was 0.42 points higher than the average raw score of English Language Learners who were Moderately Poor and 1.14 points higher than the average raw score of English Language Learners who were Very Poor on the Grade 3 STAAR Reading Reporting Category 3. English Language Learners who were Moderately Poor had an average raw score that was 0.72 points higher than the average raw score of English Language Learners who were Very Poor.

Research Question Six

In all three school years, English Language Learners who were Very Poor had statistically significantly lower met standard performance on the Phase-in 1 standard than either English Language Learners who were Moderately Poor or English Language Learners who were Not Poor. English Language Learners who were Moderately Poor had statistically significantly lower met standard performance than English Language Learners who were Not Poor. As such, a clear stair step (Carpenter et al., 2006) of

achievement was revealed for English Language Learners by their economic status. The met standard gap varied slightly between years, with the largest gap between English Language Learners who were Not Poor and English Language Learners who were Very Poor in the 2013-2014 school year with a 12.8% gap and the smallest gap during the 2014-2015 school year with an 11.4% gap. English Language Learners who were Moderately Poor had similar met standard rates as the Not Poor group, with an average achievement gap of 3.8% whereas the average achievement gap between English Language Learners who were Moderately Poor and English Language Learners who were Very Poor was 8.4%.

For the Phase-in 2 Academic Performance in all three school years, consistently, English Language Learners who were Very Poor had statistically significantly lower met standard rates both English Language Learners who were Not Poor and English Language Learners who were Moderately Poor. Similarly, English Language Learners who were Moderately Poor had statistically significantly lower met standard rates than English Language Learners in each of the three years. The met standard achievement gap varied slightly between years, with the largest gap between the English Language Learners who were Not Poor and English Language Learners who were Very Poor during the 2013-2014 school year with a 15.4% gap and smallest during the 2014-2015 school year with a 14.3% gap. English Language Learners who were Moderately Poor achieved more similarly English Language Learners who were Not Poor, with an average met standard gap of 5.8% whereas the average achievement gap between the English Language Learners who were Moderately Poor and English Language Learners who were Very Poor groups was 9.0%.

For the three comparisons, the Final Satisfactory Performance met standard had the least gap between English Language Learners. Though the English Language Learners who were Very Poor met standard statistically significantly lower than both English Language Learners who were Moderately Poor and English Language Learners who were Very Poor, it did so by the smallest margin. The met Final Satisfactory standard gap varied slightly between years, with the largest gap between English Language Learners who were Not Poor and English Language Learners who were Very Poor during the 2014-2015 school year with a 13.5% gap and smallest during the 2012-2013 school year with a 12.8% gap. English Language Learners who were Moderately Poor group met standard more similarly to English Language Learners who were Not Poor group, with an average achievement gap of 6.2% whereas the average gap between English Language Learners who were Moderately Poor and English Language Learners who were Very Poor groups was 7.0%.

Research Question Seven

For the STAAR Reading Grade 3 Reporting Category 1 raw scores, each of the three years English Language Learners who were Very Poor had statistically significantly lower average scores than English Language Learners who were Not Poor and Moderately Poor. On average, English Language Learners who were Very Poor had an average raw score that was 0.51 raw points lower than the average raw score of English Language Learners who were Not Poor and an average of 0.28 raw points lower than the average raw score of English Language Learners who were Moderately Poor. English Language Learners who were Moderately Poor were on average raw score that was 0.23 raw points lower than the average raw score of English Language Learners who were Not

Poor. As such, a clear stair step (Carpenter et al., 2006) of achievement for was revealed for English Language Learners by their economic status.

Similarly for the Grade 3 STAAR Reading Reporting Category 2, the average raw scores of English Language Learners who were Very Poor had statistically significantly lower average raw scores than both English Language Learners who were Not Poor and Moderately Poor. Specifically, English Language Learners who were Very Poor had an average raw score that was 1.22 raw points lower than English Language Learners who were Not Poor and an average of 0.80 raw points lower than English Language Learners who were Moderately Poor. As such, the average raw score of English Language Learners were 0.46 raw points lower than English Language Learners who were Not Poor.

Similarly for Reporting Category 3 STAAR Reading Grade 3 raw scores, English Language Learners who were Very Poor had statistically significantly lower raw points than both English Language Learners who were Not Poor and Moderately Poor. English Language Learners who were Very Poor had an average raw score that was 1.10 lower than English Language Learners that were Not Poor and an average of 0.69 raw points lower than English Language Learners who were Moderately Poor. The same as the previous two comparison, English Language Learners who were Moderately Poor had an average raw score 0.41 lower than English Language Learners who were Not Poor.

Discussion

In every analysis for this multiyear study, English Language Learners who were Very Poor performed statistically significantly lower than English Language Learners who were Moderately Poor. Additionally, English Language Learners who were

Moderately Poor performed statistically significantly lower than English Language Learners who were Not Poor. When analyzing the reading performance by economic status, the level of poverty makes a difference (McGown, 2016; Reardon, Valentino, & Shores, 2012). Specific to English Language Learners, the greater the poverty of the family, the lower the student achievement was. The differences might be attributed the lack of resources and background knowledge that English Language Learners who are Very Poor have (Reardon, 2013). These differences could lead to continued discrepancies with high school graduation rates, college admission rates, and employment rates (Lee & Slate, 2014). Results from this study are consistent with outcomes from other researchers who established the existence of lower reading academic performance among students who were economically disadvantaged when compared to students who were not economically disadvantaged (McGown, 2016; Reardon, 2013, Wright & Slate, 2015).

Implications for Policy and for Practice

Based upon the results of this investigation, several implications for policy and for practice can be made. First, additional resources in the classroom, such as student manipulatives and experiential learning, can be used to provide hands-on learning for English Language Learners to increase their English proficiency and their academic achievement. Second, a Literacy coach could be utilized for campuses to aide in the strengthening of students reading ability. This coach could provide additional supports to English Language Learners who are behind their peers and provide 1-1 instruction. Third, school districts could provide ongoing professional development for new and veteran teachers on research based and student focused practices. Fourth, English

Language Learners could be assessed in ways other than standardized tests that might provide a different measurement of their knowledge. Abedi (2010) suggested the linguistic complexity of standardized tests such as the STAAR may be partly responsible for the performance gaps between English Language Learners and their peers. Despite awareness of the influence of economic status on student achievement from the Coleman Report (1966), the achievement gap between the rich and the poor has widened or remained the same since its publication (Reardon, 2013). Because additional supports are needed, further collaborative efforts among federal, state, and local educational authorities to close the achievement gap are needed.

Recommendations for Future Research

Based upon the results of this empirical multiyear investigation, several recommendations for future research can be made. First, this study was conducted on data on only Grade 3 English Language Learners. The degree to which the findings obtained herein would be generalizable to English Language Learners in other grade levels is not known. Accordingly, researchers are encouraged to examine the reading achievement of English Language Learners at both earlier grade levels and at middle school and at the high school levels. Second, data on only English Language Learners were analyzed in this investigation. As such, researchers are encouraged to analyze data on other groups of students such as students who are at-risk and students in special education. Third, only the reading performance of English Language Learners was analyzed in this study. Given that mathematics is also assessed on the Grade 3 STAAR assessments, researchers are encouraged to analyze the mathematics performance of

English Language Learners to ascertain whether findings in mathematics performance would be similar to the reading results delineated herein.

Fourth, data on only Texas students were analyzed in this article. The extent to which the results of this study on only Texas students would be generalizable to English Language Learners in other states is not known. It is possible that the reading achievement of English Language Learners in other states differs from the reading achievement of English Language Learners in Texas. Fifth, researchers are encouraged to conduct longitudinal studies in which they follow the progress of students from Grades 1 through graduation. Are the reading gaps documented herein present in Grade 1 and how do they change over time? Finally, researchers are encouraged to conduct qualitative and mixed methods research studies to analyze in more depth than is possible in a purely quantitative investigation the academic achievement of English Language Learners.

Conclusion

The purpose of this research study was to determine the degree to which differences were present in the reading performances of Texas English Language Learners as a function of their economic status. Texas statewide data for three school years were obtained on all Grade 3 English Language Learners. Inferential statistical procedures revealed the presence of statistically significant differences in the reading achievement of English Language Learners by their economic status. Clearly established was the presence of a stair-step effect (Carpenter et al, 2006). English Language Learners who were Very Poor had statistically significantly lower reading performance than English Language Learners who were Moderately Poor, and English Language

Learners who were Moderately Poor had statistically significantly lower reading performance than English Language Learners who were Not Poor.

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Table 2.1

Frequencies and Percentages for the Grade 3 Reading Phase-in 1 Satisfactory Performance Standard of English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Not Poor	7,972	78.3%	2,211	21.7%
Moderately Poor	4,340	74.2%	1,509	25.8%
Very Poor	42,885	66.1%	22,015	33.9%
2013-2014				
Not Poor	8,238	76.1%	2,592	23.9%
Moderately Poor	4,573	72.3%	1,749	27.7%
Very Poor	41,753	63.3%	24,171	36.7%
2014-2015				
Not Poor	9,803	74.3%	3,392	25.7%
Moderately Poor	4,416	71.1%	1,792	28.9%
Very Poor	42,651	62.9%	25,176	37.1%

Table 2.2

Frequencies and Percentages for the Grade 3 Reading Phase-in 2 Satisfactory Performance Standard of English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Not Poor	5,734	56.3%	4,449	43.7%
Moderately Poor	2,958	50.6%	2,891	49.4%
Very Poor	26,938	41.5%	37,962	58.5%
2013-2014				
Not Poor	6,224	57.5%	4,606	42.5%
Moderately Poor	3,239	51.2%	3,083	48.8%
Very Poor	27,732	42.1%	38,192	57.9%
2014-2015				
Not Poor	8,542	64.7%	4,653	35.3%
Moderately Poor	3,680	59.3%	2,528	40.7%
Very Poor	34,209	50.4%	33,618	49.6%

Table 2.3

Frequencies and Percentages for the Grade 3 Reading Final Satisfactory Performance Standard of English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Not Poor	3,838	37.5%	6,402	62.5%
Moderately Poor	1,821	31.0%	4,049	69.0%
Very Poor	16,100	24.7%	49,206	75.3%
2013-2014				
Not Poor	4,235	38.9%	6,649	61.1%
Moderately Poor	2,082	32.8%	4,267	67.2%
Very Poor	16,896	25.5%	49,442	74.5%
2014-2015				
Not Poor	4,884	37.0%	8,311	63.0%
Moderately Poor	1,916	30.9%	4,292	69.1%
Very Poor	15,945	23.5%	51,882	76.5%

Table 2.4

Frequencies and Percentages for the Grade 3 Reading Level III Advanced Academic Performance Standard of English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Not Poor	1,765	17.2%	8,475	82.8%
Moderately Poor	790	13.5%	5,080	86.5%
Very Poor	6,588	10.1%	58,718	89.9%
2013-2014				
Not Poor	1,616	14.8%	9,268	85.2%
Moderately Poor	738	11.6%	5,611	88.4%
Very Poor	6,108	9.2%	60,230	90.8%
2014-2015				
Not Poor	2,475	18.6%	10,807	81.4%
Moderately Poor	888	14.3%	5,338	85.7%
Very Poor	10,354	11.8%	77,486	88.2%

Table 2.5

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 1 Scores for English Language Learners by Their Economic Status for the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Not Poor	10,183	4.08	1.57
Moderately Poor	5,849	3.79	1.56
Very Poor	64,900	3.48	1.57
2013-2014			
Not Poor	10,830	4.17	1.57
Moderately Poor	6,322	3.95	1.56
Very Poor	65,924	3.65	1.62
2014-2015			
Not Poor	13,282	3.91	1.60
Moderately Poor	6,226	3.73	1.57
Very Poor	68,332	3.51	1.59

Table 2.6

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 2 Scores for English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Not Poor	10,183	11.26	3.68
Moderately Poor	5,849	10.92	3.67
Very Poor	64,900	10.17	3.79
2013-2014			
Not Poor	10,830	11.75	3.76
Moderately Poor	6,322	11.26	3.68
Very Poor	65,924	10.36	3.81
2014-2015			
Not Poor	13,282	11.12	4.02
Moderately Poor	6,226	10.68	3.88
Very Poor	68,332	9.93	3.93

Table 2.7

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 3 Scores for English Language Learners by Their Economic Status in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Not Poor	10,183	10.26	3.68
Moderately Poor	5,849	9.8	3.67
Very Poor	64,900	9.15	3.79
2013-2014			
Not Poor	10,830	9.90	3.37
Moderately Poor	6,322	9.54	3.28
Very Poor	65,924	8.86	3.34
2014-2015			
Not Poor	13,282	10.33	3.50
Moderately Poor	6,226	9.92	3.35
Very Poor	68,332	9.19	3.38

CHAPTER III

DIFFERENCES IN THE READING ACHIEVEMENT OF TEXAS GRADE 3
ENGLISH LANGUAGE LEARNERS BY THEIR ETHNICITY/RACE: A
MULTIYEAR STATEWIDE STUDY

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners by their ethnicity/race (i.e., Asian, White, Hispanic, Black). Specifically analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among Asian, White, Hispanic, and Black English Language Learners. Inferential statistical procedures revealed that, in all cases, reading achievement was statistically significantly higher for Asian English Language Learners than for Hispanic, Black, and White English Language Learners. Hispanic and Black English Language Learners had the statistically significantly poorest reading performance in 18 of the 21 statistical comparisons. Implications for policy and practice, as well as recommendations for future research, are provided.

KEY WORDS: English Language Learners, Ethnicity/Race, Texas, STAAR, Reading, Achievement Gaps

DIFFERENCES IN THE READING ACHIEVEMENT OF TEXAS GRADE 3
ENGLISH LANGUAGE LEARNERS BY THEIR ETHNICITY/RACE: A
MULTIYEAR STATEWIDE STUDY

Educational leaders have been and continue to be engaged in efforts to close the academic achievement gaps (Coleman, 1966; Reardon, 2011) that have been documented for over the past five decades. Beginning in 1990, the National Assessment of Educational Progress started collecting data to measure the academic performance of students in United States public schools. According to the National Assessment of Educational Progress 2011 report, achievement gaps in reading between Hispanic and White students have remained constant over the past 25 years. To address achievement gaps, beginning in 1965, former-President Johnson signed into law the Elementary and Secondary Education Act. This act was a civil rights law that provided structure to ensure educational opportunity for all students. In 2015, former-President Obama's administration reissued this act under the name, Every Student Succeeds Act, in which a renewed commitment was made to provide equal opportunity for all students. Under the Every Student Succeeds Act, states are able to develop strategic plans to close achievement gaps, increase equity, and quality of instruction for all students (U.S. Department of Education, 2015).

According to the United States Census Bureau (2014), 49,474,000 students are enrolled in elementary schools and high schools across the United States. Of those students, 22,719,000 students are either Black or Hispanic, which represents 45.92% of the student population in the United States. Furthermore, nearly a quarter of the student population is economically disadvantaged, with the majority of this group being Black

and Hispanic students. With respect to the state of interest in this investigation, Texas, a total of 5,232,065 students were enrolled in elementary and secondary public schools during the 2014-2015 school year. Of those students, 3,383,224 were either Black or Hispanic, which represented about 64.66% of the Texas public school population (Texas Education Agency, 2016a). With a majority of the Texas population being either Black or Hispanic, it is imperative that empirical data be available about the relationships between student ethnicity/race and reading achievement.

Over the next decade, public school enrollment is estimated to increase by 6%, for a total of 52.9 million students (National Center for Education Statistics, 2015a). Over the last decade, the percentage of White students enrolled in public schools in the United States decreased from 59% to 51% (National Center for Education Statistics, 2015b). In 1971 when the National Assessment of Educational Progress reading assessment began, the two major ethnic/racial groups were Black and White. At the time, these two ethnic/racial groups comprised almost 98% of all students in the United States (Hemphill & Vannemann, 2011). By 2024, the ethnic/racial composition of students in public elementary and secondary schools is estimated to be: White, 46%; Black, 15%; Hispanic, 29%, Asian, 6%; American Indian, 1% and Two or more races, 4% (National Center for Education Statistics, 2015b).

The educational system was created to provide equal opportunities for all students, though based on research, an achievement gap is present (Leefatt, 2015; Harvey et al., 2013). According to the National Education Association (2015), the achievement gap is defined as the difference between test scores of Black and Hispanic and or low economic students and their White or Asian peers. This gap often leads to long term gaps

in college completion and the jobs they secure during their lifetime. According to Leefatt (2015), the achievement gap is caused by a lack of exposure and opportunities.

In regard to student achievement, Bohrnstedt, Kitmitto, Ogut, Sherman, and Chan (2015) reviewed the results from the National Assessment of Educational Progress Mathematics exam. Specifically, they analyzed the academic achievement of Black and White students in comparison to the demographic composition of the school in which the students attend. The Black-White achievement gap was 26 points in each density category.

Hemphill and Vanneman (2011) completed a longitudinal study of the performance of Hispanic and White students in reading and mathematics from 1998 to 2009. Based on the results, the achievement gaps have not increased nor decreased between these two groups based on the assessment results. Hemphill and Vanneman (2011) contended that the achievement of these two groups is not determined by their ethnicity/race and that other various background factors such as poverty contributed to their success, or lack thereof.

In a recent Texas statewide analysis, Harvey, Slate, Moore, Barnes, and Martinez-Garcia (2013) analyzed longitudinal American College Test (ACT) data and the extent to which the achievement gap in college readiness skills had changed among the different ethnic/racial groups of Texas students over the last decade (2001-2011). Harvey et al. (2013) established the presence of clear separations between the four ethnic/racial groups in each year of this study. Average ACT scores were always the highest for Asian students, followed by White students, then Hispanic students, and finally by Black students. The largest difference in academic achievement test scores revealed was

between Black and Asian students, which was 5.48 points. The smallest difference in average scores were between the Black and Hispanic students, 1.31 points. Though both state and federal governments have emphasized closing the achievement gaps, the achievement gaps between ethnic/racial groups, at least with respect to college readiness, have not changed over time.

In another study, Clotfelter, Ladd, and Vigdor (2009) analyzed the achievement gap in third through eighth grade in North Carolina Schools. They primarily focused on the Black-White gap, but included Asian and Hispanic data as well. Beyond simple mean differences, Clotfelter et al. (2009) determined that the racial/ethnic gaps in mathematics decreased for low-performing students whereas the gaps for high-performing students had increased.

Similarly, Horton (2004) examined academic achievement gaps between Black and White students at both the elementary schools and high schools. Horton (2004) analyzed standardized assessment data to compare scores between high performing and low performing schools. In a regression analysis, ethnicity/race or economic status was not a negative factor at high performing or low performing schools. Horton (2004) suggested that the quality of the teaching in each of the schools should be analyzed to determine the difference.

In a statewide Texas investigation, Rojas-LeBouef (2010) explored the extent to which achievement gaps persisted in reading and mathematics for Texas Grade 5 students over a 16-year period from 1993 until 2009. During that time span, the Texas Education Agency transitioned from the Texas Assessment of Academic Skills to the Texas Assessment of Knowledge and Skills, thus resulting in some years not having compatible

tests. Even so, over that period, White students outperformed Hispanic students, who themselves outperformed Hispanic students who were also English Language Learners in reading and mathematics. Of the 60 statistical comparisons in her dissertation, 43 comparisons were identified as being large effect sizes and 15 comparisons were moderate effect sizes. In each comparison over the 16 years, results were statistically significant and provided strong evidence that achievement gaps were present (Rojas-LeBouef, 2010). In all instances, English Language Learners had statistically significantly lower average reading and mathematics test scores than Hispanic non-English Language Learners.

In a very recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 students. McGown (2016) established the presence of a clear stair-step of achievement (Carpenter, Ramirez, & Severns, 2006) in that Black students had the lowest reading and mathematics performance in all three school years. Hispanic students had the next lowest reading performance in all three school years. Asian students always had the highest average performance, followed closely by White students. McGown's (2016) results were commensurate with the existing research literature.

In relation to the population of interest for this article, the National Center for Education Statistics (2016) established that 78.4% of English Language Learners reported speaking Spanish in their homes during the 2013-2014 school year. The total percent of English Language Learners in public schools during the 2013 school year was 9.2%. Asian English Language Learners were the second largest group participating in

English Language Learner programs at 10.6%. From 2009 to 2013, the overall percentage of Hispanic English Language Learners decreased from 31% to 28.7%, though this subpopulation increased from 3.4 million to 3.6 million students.

More specifically in regard to Texas, during the 2015-2016 school year according to the Texas Education Agency (2016a), 89.5% of English Language Learners were Hispanic. The next largest group in Texas was Asian (5.4%), White (2.8%), and then Black (1.5%). From the 2005-2006 school year to the 2015-2016 school year, a total of 778,685 students have enrolled in Texas which means that English Language Learners have accounted for 34.56% of the student population growth during this time span (Texas Education Agency, 2016a).

With respect to the population of students and state of interest in this investigation, a total of 5,359,127 students were enrolled in elementary and secondary public schools in the 2016-2017 school year in Texas. Of these students, 1,010,596 individuals were identified as being an English Language Learner, which represented about 18.86% of the Texas public school population (Texas Education Agency, 2016a). With a large percentage of the United States and Texas population being an English Language Learner and that population increasing every year, it is imperative that empirical data be available about the relationships between student ethnicity/race and reading achievement.

The group of students who are English Language Learners warrant interest because of their documented achievement gaps. Students who are English Language Learners have lower academic achievement scores than do their peers (Abedi, 2002,

2010). English Language Learners score lower on both standardized and non-standardized tests than do students who are native-English speaking students.

Statement of the Problem

With the ever-growing population in the United States coming from non-White individuals who speak languages other than English, educators need to address achievement gaps that continue to be present. According to the National Center for Education Statistics (2015b), the percentage of White students enrolled in public elementary and secondary school will decrease from 59% in 2002 to 46% in 2024. Under that same timeframe, the percentage of Hispanic students will increase from 18% to 29% and the percentage of Black students will decrease from 17% to 15%. In addition to the achievement gap within the United States between different ethnic/racial groups of students, in 2012, the United States ranked 35th according to the Programme for International Student Assessment in comparison to other civilized countries, which promoted several changes to the United States educational system. With the changes in the population based on ethnicity/race, immigrants and non-native English speakers have also increased in population. The additional English Language Learners and students of different ethnic/racial groups in the classroom require educators to accommodate for the limited experiences and resources of their peers.

Purpose of the Study

The purpose of this study was to examine the degree to which differences were present in the academic achievement of Grade 3 English Language Learners by their ethnicity/race (i.e., Asian, White, Hispanic, Black). Specifically analyzed in this investigation were the current Texas state-mandated assessments in reading and the

extent to which test scores differed among Asian, White, Hispanic, and Black English Language Learners. Through examining three years of Texas statewide data, the extent to which a trend was present across the three years in reading skills by the ethnicity/race of English Language Learners was determined.

Significance of the Study

Researchers (e.g., Bohrnstedt et al., 2015; Harvey et al., 2013; McGown, 2016) have conducted extensive analyses on the relationship between ethnicity/race and student academic performance. In Texas, the previously state-mandated assessment has been examined in numerous studies with respect to achievement gaps. In only one recent investigation (McGown, 2016), however, was the recently implemented State of Texas Assessment of Academic Readiness examined with respect to the presence of achievement gaps in reading. McGown (2016), however, did not analyze the test scores of English Language Learners. Findings of this study will add additional evidence regarding the presence of achievement gaps on the State of Texas Assessment of Academic Readiness.

As noted, no empirical investigations were located in which the reading performance of English Language Learners on the new state-mandated assessment in Texas was examined. McGown (2016) did not analyze the reading performance of Grade 3 English Language Learners, nor did she examine the reading performance of English Language Learners by their ethnicity/race. As such, results from this multiyear investigation will help to fill in a void or gap in the extant literature.

Research Questions

The research questions that were investigated in this study were: (a) What is the difference on the STAAR Reading Level II Academic Performance measures (i.e., Phase in 1, Phase in 2, and Final Satisfactory) for Grade 3 English Language Learners as a function of their ethnicity/race (i.e., Asian, White, Hispanic, and Black)? (b) What is the difference on the STAAR Reading Level III Academic Performance measures for Grade 3 English Language Learners as a function of their ethnicity/race?; (c) What is the difference on the STAAR Reading Reporting Category 1: Understanding Across Genres a for Grade 3 English Language Learners as a function of their ethnicity/race?; (d) What is the difference on the STAAR Reading Reporting Category 2: Understanding/Analysis of Literary Texts for Grade 3 English Language Learners as a function of their ethnicity/race?; (e) What is the difference on the STAAR Reading Reporting Category 3: Understanding/Analysis of Informational Texts for Grade 3 English Language Learners by their ethnicity/race?; (f) What trend is present over time in the STAAR Reading Level II Academic Performance measures for Grade 3 English Language Learners by their ethnicity/race?; and (g) What trend is present in the STAAR Reading Reporting Categories scores for Grade 3 English Language Learners by their ethnicity/race? The first five research questions were repeated for the 2012-2013, 2013-2014, and 2014-2015 school years whereas the last two research questions were comparisons across these three school years. As such, a total of 17 research questions was present in this empirical investigation.

Method

Research Design

For this investigation, a causal-comparative research design (Johnson & Christensen, 2012) was present because of the use of archival data. The Texas Education Agency Public Education Information Management System already made available the data that were analyzed in this multiyear investigation. In causal-comparative studies, the independent variables and dependent variables have already occurred, thus precluding any ability to manipulate or to control variables (Johnson & Christensen, 2012).. In this study, the independent variable of the ethnicity/race of Grade 3 English Language Learners was present and was not alterable. Moreover, the Grade 3 English Language Learners in this investigation had previously taken the State of Texas Assessment of Academic Readiness Reading test in either the 2012-2013, 2013-2014, or the 2014-2015 school years.

Participants and Instrumentation

Participants in this study were Grade 3 English Language Learners in the four ethnic/racial groups previously discussed and who completed the State of Texas Assessment of Academic Readiness Reading assessments in the 2012-2013, 2013-2014, or the 2014-2015 school years. English Language Learners are students who are “in the process of acquiring English and has another language as the first native language” (Chapter 89.1203 of Texas Education Code). The ethnic/racial background of each student was recorded on the test answer document by the school district. During the 2011-2012 school year, Texas changed the mandatory standardized achievement test from the Texas Assessment of Knowledge and Skills Test to the State of Texas

Assessment of Academic Readiness. With this change, Texas went from assessing students on basic skills to assessing students on the application of the knowledge and skills (Texas Education Agency, 2016b). Students are assessed in Reading in Grade 3 through Grade 8. Each STAAR assessment was created through a blueprint which was shared prior to release of the test to guide instruction. These students must meet certain criteria determined by each local independent school district.

On each assessment, test creators use the blueprint to determine which Texas Essential Knowledge and Standards (TEKS) will be tested each year. Texas Essential Knowledge and Skills further delineated into Readiness Standards and Supporting Standards. Readiness Standards vary for each grade level and content area but are most critical for students to be successful in the current grade level and to be prepared for the next course (Texas Education Agency, 2016b). Supporting Standards are concepts and content that are newly introduced in the current grade level and prepare students for the next grade level but not critical for students to master the current grade level (Texas Education Agency, 2016b).

The Texas Education Agency has created three levels of performance: Level 1: Unsatisfactory Academic Performance, Level 2: Satisfactory Academic Performance, and Level 3: Advanced Academic Performance (Texas Education Agency, 2013). As the STAAR exam was new, the Texas Education Agency gradually increased the performance standard (i.e., Phase-in 1, Phase-in 2, Final Satisfactory). To ensure validity and reliability, the Texas Technical Advisory Committee (TTAC) conducted numerous studies. External studies comparing the STAAR exam to the SAT and ACT were conducted specifically as well as vertical scale studies that allow comparison of student

performance across grades within a content area (Texas Education Agency, 2013).

Readers are directed to the Texas Education Agency website for further information regarding score validity and reliability for the STAAR Reading assessments.

Results

To determine whether a difference was present in the Phase-in 1, Phase-in 2, and Final Satisfactory Academic performance standards by the ethnicity/race of English Language Learners, Pearson chi-square procedures were performed. This statistical procedure was most appropriate to use because both the independent variable of ethnicity/race (i.e., Asian, White, Hispanic, and Black) and the STAAR Reading test dependent variables (i.e., met or did not meet standard) were categorical in nature and constituted frequency data. As such, the optimal inferential statistical procedure was the Pearson chi-square (Field, 2013). Given that the sample size was greater than five per cell, the assumptions were met.

Research Question One Results

Concerning the Phase-in 1 Satisfactory Performance Standard by the ethnicity/race of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(3) = 269.70, p < .001$. The effect size, Cramer's V , was below small, .05 (Cohen, 1988). As revealed in Table 3.1, Asian English Language Learners had the highest met standard rates on this Phase-in standard. A stair-step effect (Carpenter, Ramirez, & Severns, 2006) was observed, with the Asian English Language Learner group having a higher met standard rate, 7% higher, than the White English Language Learner group, 7.8% higher than the Black English Language Learner group, and 10.9% higher than the Hispanic English Language Learner group.

Insert Table 3.1 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(3) = 326.24, p < .001$, and yielded an effect size, Cramer's V, that was below small, .06 (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. Asian English Language Learners had the highest percentage who met this standard, 8.3% higher, than White English Language Learners, 10.5% higher than Black English Language Learners, and 11.9% higher than Hispanic English Language Learners. Descriptive statistics for this analysis are contained in Table 3.1.

Regarding the 2014-2015 school year, a statistically significant difference was present, $\chi^2(3) = 335.75, p < .001$, Cramer's V of .06, a below small effect size (Cohen, 1988). Similar to the previous two school years, Asian English Language Learners had the highest percentage who met this Phase-in standard, 11.1% higher, than the White English Language Learner group, 11.7% higher than the Hispanic English Language Learner group, and 12.7% higher than the Black English Language Learner group. Delineated in Table 3.1 are the descriptive statistics for this school year.

Concerning the Level II Phase-in 2 Satisfactory Performance Standard by the ethnicity/race of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(3) = 402.03, p < .001$. The effect size, Cramer's V, was below small, .06 (Cohen, 1988). As revealed in Table 3.2, Asian English Language Learners had the highest percentage who met this Phase-in standard, 10.2%, higher than the White English Language Learner group, 11.1% higher than the Black English

Language Learner group, and 14% higher than the Hispanic English Language Learner group. As such, a stair-step effect (Carpenter et al., 2006) was present.

 Insert Table 3.2 about here

With respect to the 2013-2014 school year, a statistically significant difference was present, $\chi^2(3) = 625.86$, $p < .001$, and yielded an effect size, Cramer's V, .08, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. Asian English Language Learners had the highest percentage who met this standard, 10.8% higher, than the White English Language Learner group, 12.4% higher than the Black English Language Learner group, and 16.9% higher than the Hispanic English Language Learner group. Descriptive statistics for this analysis are contained in Table 3.2.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(3) = 620.23$, $p < .001$. The effect size, Cramer's V, was below small, .08 (Cohen, 1988). Similar to the previous two school years, Asian English Language Learners had the highest percentage who met this standard, 13.9% higher, than White English Language Learners, 15.5% higher than Black English Language Learners, and 16.7% higher than Hispanic English Language Learners. Delineated in Table 3.2 are the descriptive statistics for this school year.

Concerning the Level II Final Satisfactory Performance Standard by the ethnicity/race status of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(3) = 401.04$, $p < .001$. The effect size, Cramer's V,

was below small, .06 (Cohen, 1988). As presented in Table 3.3, Asian English Language Learners had the highest percentage who met this Phase-in standard. A stair-step effect (Carpenter et al., 2006) was observed, with Asian English Language Learners having a passing rate that was 8.9% higher than White English Language Learners, 10.9% higher than Black English Language Learners, and 12.4% higher than Hispanic English Language Learners.

 Insert Table 3.3 about here

With respect to the 2013-2014 school year, a statistically significant difference was present, $\chi^2(3) = 593.37$, $p < .001$, and yielded an effect size, Cramer's V, .08, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. Asian English Language Learners had the highest percentage who met this standard, 10% higher, than White English Language Learners, 12.2% higher than Black English Language Learners, and 14.9% higher than Hispanic English Language Learners. Descriptive statistics for this analysis are contained in Table 3.3.

Regarding the 2014-2015 school year, a statistically significant difference was present, $\chi^2(3) = 930.65$, $p < .001$, Cramer's V of .10, a small effect size (Cohen, 1988). Similar to the previous two school years, Asian English Language Learners had higher passing rates on this standard, 12.1% higher, than any other group. In this school year, Black English Language Learners had the next highest met standard percentage, followed

by White English Language Learners and finally Hispanic English Language Learners. Delineated in Table 3.3 are the descriptive statistics for this school year.

Research Question Two Results

Concerning the Level III Advanced Academic Performance standard by the ethnicity/race of English Language Learners, the result for the 2012-2013 school year was statistically significant, $\chi^2(3) = 206.42, p < .001$. The effect size, Cramer's V, was below small, .05 (Cohen, 1988). As presented in Table 3.4, Asian English Language Learners had the highest percentage who met this performance standard, 4.6% higher, than White English Language Learners, 6.2% higher than Hispanic English Language Learners, and 7.2% higher than Black English Language Learners. A stair-step effect (Carpenter et al., 2006) was present.

 Insert Table 3.4 about here

With respect to the 2013-2014 school year, a statistically significant difference was present, $\chi^2(3) = 176.72, p < .001$, and yielded an effect size, Cramer's V, .04, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, a stair-step effect (Carpenter et al., 2006) was present. Asian English Language Learners had the highest passing rates on this standard, 5% higher, than White English Language Learners, 5.5% higher than Hispanic English Language Learners and 6.1% higher than Black English Language Learners. Descriptive statistics for this analysis are contained in Table 3.4.

Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(3) = 719.78, p < .001$. The effect size, Cramer's V, .08, was below small

(Cohen, 1988). Asian English Language Learners had the highest percentage who met this performance standard, 9.2% higher, than Black English Language Learners, 10.7% higher than White English Language Learners, and 11.5% higher than Hispanic English Language Learners. Delineated in Table 3.4 are the descriptive statistics for this school year.

Research Question Three Overall Results

Prior to conducting a multivariate analysis of variance (MANOVA) statistical procedure to answer the third research question, its underlying assumptions were checked. Specifically data normality, Box's Test of Equality of Covariance, and Levene's Test of Equality of Error Variances were examined. Although the assumptions for the MANOVA procedure were not all met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2013).

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .99$, $p < .001$, partial $\eta^2 = .003$, in overall reading performance as a function of ethnicity/race. Using Cohen's (1998) criteria, the effect size was trivial. With respect to the 2013-2014 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .99$, $p < .001$, partial $\eta^2 = .003$, in overall reading performance as a function of ethnicity/race. Using Cohen's (1998) criteria, the effect size was trivial. Similarly for the 2014-2015 school year, the MANOVA revealed a statistically significant overall difference, Wilks' $\Lambda = .99$, $p < .001$, partial $\eta^2 = .003$, in reading performance as a function of ethnicity/race. Using Cohen's (1988) criteria, the effect size was trivial. Because the MANOVAs for each school year revealed the presence of statistically significant differences in aggregated reading performance by

student ethnicity/race, univariate follow-up analysis of variance (ANOVA) procedures were calculated on each of the three STAAR Reading Reporting categories.

Research Question Three Reading Reporting: Category 1 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different by the ethnicity/race (i.e., Asian, White, Hispanic and Black) of English Language Learners, $F(3, 98496) = 272.00, p < .001, \eta^2 = .008$, a trivial effect size (Cohen, 1988). Scheffe' post hoc procedures were then conducted to determine which pairs of economic groups had different raw scores. These post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 3.5, Asian English Language Learners had an average raw score, 0.37 points higher than the average raw score of White English Language Learners, 0.41 points higher than Black English Language Learners, and 0.62 points higher than the average raw score of Hispanic English Language Learners on the Grade 3 STAAR Reading Reporting Category 1. White English Language Learners had an average score 0.26 raw points higher than Hispanic English Language Learners, and 0.04 raw points higher than Black English Language Learners. Black English Language Learners had an average raw score that was 0.22 points higher than the average raw score of Hispanic English Language Learners.

 Insert Table 3.5 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 1 raw scores by the ethnicity/race of

English Language Learners, $F(3, 101190) = 197.83, p < .001, \eta^2 = .006$, trivial effect size (Cohen, 1988). To determine which pairs of student groups differed from each other, Scheffe' post hoc procedures were again conducted. Statistically significant differences were present for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their ethnicity/race. Asian English Language Learners had an average raw score that was 0.42 points higher than the average raw score of White English Language Learners, 0.43 points higher than the average raw score of Black English Language Learners, and 0.55 points higher than the average raw score of the Hispanic English Language Learners. White English Language Learners had an average score 0.12 raw points higher than the Hispanic English Language Learners, and 0.01 points higher than Black English Language Learners. Black English Language Learners had an average raw score that was 0.12 points higher than the average raw score of Hispanic English Language Learners. Delineated in Table 3.5 are the descriptive statistics for this analysis.

Similarly for the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different by the ethnicity/race of English Language Learners, $F(2, 104572) = 131.78, p < .001, \eta^2 = .004$, a trivial effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As revealed in Table 3.5, Asian English Language Learners had an average raw score that was 0.42 points higher than the average raw score of Hispanic English Language Learners, 0.43 points higher than the average raw score of Black English Language Learners, and 0.49 points higher than the average raw score of White English Language Learners on the Grade 3 STAAR Reading

Reporting Category 1. Hispanic English Language Learners had on average 0.07 raw points higher than the White English Language Learners, and 0.01 raw points higher than Black English Language Learners. Black English Language Learners had an average raw score that was 0.06 points higher than the average raw score of White English Language Learners.

Research Question Four Reading Reporting Category 2 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different by the ethnicity/race of English Language Learners, $F(3, 98496) = 90.63, p < .001, \eta^2 = .003$, a trivial effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As presented in Table 3.6, Asian English Language Learners had an average raw score that was 0.83 points higher than the average raw score of White English Language Learners, 0.87 points higher than the average raw score of Black English Language Learners, and 0.89 points higher than the average raw score of Hispanic English Language Learners on the Grade 3 STAAR Reading Reporting Category 2. White English Language Learners had an average raw score that was 0.04 points higher than Black English Language Learners and 0.06 points higher than the average raw score of Hispanic English Language Learners. Black English Language Learners had an average raw score that was 0.01 points higher than the average raw score of Hispanic English Language Learners.

Insert Table 3.6 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 2 raw scores by the ethnicity/race of English Language Learners, $F(3, 101190) = 258.46, p < .001, \eta^2 = .008$, a trivial effect size (Cohen, 1988). Statistically significant differences were present for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their ethnicity/race. Asian English Language Learners had an average raw score that was 0.82 points higher than the average raw score of White English Language Learners, 0.95 points higher than the average raw score of Black English Language Learners, and 1.44 points higher than the average raw score of Hispanic English Language Learners. White English Language Learners had an average raw score that was 0.13 raw points higher than the average raw score of Black English Language Learners, and 0.63 points higher than the average raw score of Hispanic English Language Learners. Black English Language Learners had an average raw score that was 0.49 points higher than the average raw score of Hispanic English Language Learners. Delineated in Table 3.6 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different by the ethnicity/race of English Language Learners, $F(2, 104572) = 242.41, p < .001, \eta^2 = .007$, a trivial effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As presented in Table 3.6, Asian English Language Learners had an average raw score that was 1.38 points higher than the average raw score of White English Language Learners, 1.43 points higher than the average raw score of Hispanic English Language Learners, and 1.47 points higher than

the average raw score of Black English Language Learners on the Grade 3 STAAR Reading Reporting Category 2. White English Language Learners had an average raw score that was 0.05 raw points higher than the average raw score of Hispanic Language Learners, and 0.06 points higher than the average raw score of Black English Language Learners. Hispanic English Language Learners had an average raw score that was 0.04 points higher than the average raw score of Black English Language Learners.

Research Question Five Reading Reporting Category 3 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different by the ethnicity/race of English Language Learners, $F(3, 98496) = 123.68, p < .001, \eta^2 = .004$, a trivial effect size (Cohen, 1988). Scheffe' post hoc procedures revealed that all three pairwise comparisons were statistically significantly different. As delineated in Table 3.7, Asian English Language Learners had an average raw score that was 0.63 points higher than the average raw score of White English Language Learners, 0.91 points higher than the average raw score of Hispanic English Language Learners, and 0.99 points higher than the average raw score of Black English Language Learners on the Grade 3 STAAR Reading Reporting Category 3. White English Language Learners had an average raw score that was 0.28 raw points higher than the average raw score of Hispanic English Language Learners and 0.37 points higher than the average raw score of Black English Language Learners. Hispanic English Language Learners had an average raw score that was 0.09 points higher than the average raw score of Black English Language Learners.

Insert Table 3.7 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 3 raw scores by the ethnicity/race of English Language Learners, $F(3, 101190) = 170.12, p < .001, \eta^2 = .005$, a trivial effect size (Cohen, 1988). Statistically significant differences were present for each pairwise comparison. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their ethnicity/race. Asian English Language Learners had an average raw score that was 0.91 points higher than the average raw score of White English Language Learners, 1.06 points higher than the average raw score of Hispanic English Language Learners, and 1.19 points higher than the average raw score of Black English Language Learners. White English Language Learners had an average raw score that was 0.15 points higher than the average raw score of Hispanic English Language Learners, and 0.28 points higher than the average raw score of Black English Language Learners. Hispanic English Language Learners had an average raw score that was 0.14 points higher than the average raw score of Hispanic English Language Learners. Delineated in Table 3.7 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different by the ethnicity/race of English Language Learners, $F(2, 104572) = 295.95, p < .001, \eta^2 = .008$, a trivial effect size (Cohen, 1988). All three pairwise comparisons were statistically significantly different. As delineated in Table 3.7, Asian English Language Learners had an average

raw score that was 1.30 points higher than the average raw score of White English Language Learners, an average raw score that was 1.36 points higher than the average raw score of Hispanic English Language Learners, and an average raw score that was 1.38 points higher than the average raw score of Black English Language Learners on the Grade 3 STAAR Reading Reporting Category 3. White English Language Learners had an average raw score that was 0.06 points higher than the average raw score of Hispanic English Language Learners, and an average raw score that was 0.08 points higher than for Black English Language Learners. Hispanic English Language Learners had an average raw score that was 0.01 points higher than the average raw score of Black English Language Learners.

Research Question Six

For two of the three school years, Hispanic English Language Learners had statistically significantly lower met standard performance on the Phase-in 1 standard than Asian, White, and Black English Language Learners. In the other school year, Black English Language Learners had statistically significant lower met standard performance. The met standard gap varied slightly between years, with the largest gap, 12.7%, occurring between Asian English Language Learners and Black English Language Learners in the 2014-2015 school year. The smallest gap, 1.0%, occurred in the 2014.2015 school year between Hispanic English Language Learners and Black English Language Learners. Asian English Language Learners outperformed all other English Language Learner racial/ethnic groups in all three school years. White English Language Learners outperformed both Black and Hispanic English Language Learners in all three school years.

For the Phase-in 2 Academic Performance throughout the three school years, consistently, Hispanic English Language Learners had statistically significant lower met standard performance than Asian, White, and Black English Language Learners. The met standard rate varied from year to year, with the largest achievement gap, 17.1%, occurring in the 2013-2014 school year between Asian English Language Learners and Hispanic English Language Learners. For this Phase-in 2 Academic Performance standard, Hispanic English Language Learners had a similar met performance as both Black and White English Language Learners over the three school years.

Hispanic English Language Learners performed statistically significantly lower than Asian, White, and Black English Language Learners on the Final Satisfactory Academic Performance in all three school years. The largest met standard achievement gap, 18.0%, between groups was between Asian English Language Learners and Hispanic English Language Learners in the 2014-2015 school year. The average met standard rate for Hispanic English Language Learners was 2.4% lower than the average met standard for Black English Language Learners and 3.5% lower than the average met standard for White English Language Learners. The average met standard rate for White English Language Learners was 11.6% lower than the average met standard for Asian English Language Learners.

Research Question Seven

For the two of the three school years, Hispanic English Language Learners had statistically significantly lower average raw scores on the STAAR Reading Grade 3 Reporting Category 1 raw score in comparison to Asian, White, and Black English Language Learners. In the 2014-2015 school year, White English Language Learners

had the statistically significantly lowest average raw scores. On average, Hispanic English Language Learners had an average raw score that was 0.53 points lower than the average raw score of Asian English Language Learners.

With respect to the STAAR Reading Grade 3 Reporting Category 2 scores, Hispanic English Language Learners had statistically significantly lower average raw scores in two of the three school years. In the 2014-2015 school year, Black English Language Learners had the lowest average raw scores. Hispanic English Language Learners had an average raw score that was 1.25 points lower than the average raw score of English Asian Language Learners. Black English Language Learners performed similarly on the STAAR Reading Reporting Category 2.

Regarding the STAAR Reading Reporting Category 3, Black English Language Learners had the statistically significantly lowest average raw scores in all three school years. Black English Language Learners had an average raw score that was 1.19 points lower than the average raw score of Asian English Language Learners, 0.24 points lower than the average raw score of White English Language Learners, and 0.08 points lower than the average raw score of Hispanic English Language Learners. Hispanic English Language Learners had an average raw score that was 1.22 points lower than the average raw score of Asian English Language Learners and 0.16 points lower than the average raw score of White English Language Learners. White English Language Learners had an average raw score that was 0.91 points lower than the average raw score of Asian English Language Learners.

Discussion

In this investigation, the extent to which differences in the reading performance of English Language Learners as a function of their ethnicity/race was examined. Three years of statewide data were obtained and analyzed on the STAAR Reading test for Grade 3 English Language Learners. For each inferential statistical analysis, Asian English Language Learners outperformed the three other ethnic/racial groups. Hispanic English Language Learners performed statistically significantly lower on 11 out of the 12 comparisons for the different met standard levels. Black English Language Learners had the statistically significant lowest reading performance in one school year. In regard to the three individual Grade 3 STAAR Reading Reporting Categories, Asian English Language Learners had the statistically significantly best performance. White, Hispanic, and Black English Language Learners scored similarly on the three STAAR Reading Reporting Categories.

Connections with Existing Literature

Based on the results of this investigation, the results correspond with other research (McGown, 2016; Harvey et al., 2013) in that Asian English Language Learners outperformed all other racial/ethnic groups. For this investigation, the majority of the population of English Language Learners was Hispanic, 95%. Similar to previous research, English Language Learners who were Hispanic performed lower than their peers. In a similar investigation with the same data, McGown (2016) analyzed data for all students and established a clear stair-step of achievement (Carpenter, Ramirez, & Severns, 2006). The results from this study were not aligned with those results. One key difference was the relationship of White English Language Learners, who performed

more similarly to Hispanic and Black English Language Learners. Another difference was that Hispanic English Language Learners scored lower on 11 of the 12 comparisons for met standard, whereas McGown (2016) established Black students performed the lowest.

Implications for Policy and for Practice

Based upon the results of this investigation, several implications for policy and for practice can be made. First, additional resources in the classroom, such as student manipulatives and experiential learning, can be used to provide hands-on learning for English Language Learners to increase their English proficiency and their academic achievement. Second, a Literacy coach could be utilized for campuses to aide in the strengthening of students reading ability. This coach could provide additional supports to English Language Learners who are behind their peers and provide 1-1 instruction. Third, school districts could provide ongoing professional development for new and veteran teachers on research based and student focused practices. Fourth, English Language Learners could be assessed in ways other than standardized tests that might provide a different measurement of their knowledge. Abedi (2010) suggested the linguistic complexity of standardized tests such as the STAAR may be partly responsible for the performance gaps between English Language Learners and their peers. Despite awareness of the influence of economic status on student achievement from the Coleman Report (1966), the achievement gap between the rich and the poor has widened or remained the same since its publication (Reardon, 2011). Because additional supports are needed, further collaborative efforts among federal, state, and local educational authorities to close the achievement gap are needed.

Recommendations for Future Research

Based upon the results of this empirical multiyear investigation, several recommendations for future research can be made. First, this study was only conducted on data on only Grade 3 English Language Learners. Accordingly, the degree to which the results delineated herein would be generalizable to English Language Learners in other grade levels is not known. Researchers are encouraged to extend this investigation to English Language Learners at lower elementary grade levels, middle school grade levels, and at secondary school grade levels. Second, data on only English Language Learners were analyzed in this investigation. Accordingly, researchers are encouraged to analyze data on other groups of students such as students who are qualified for special education services and students who are at-risk. Third, this investigation was limited to the reading performance of English Language Learners. As such, researchers are encouraged to examine the mathematics, science, writing, and social studies performance of English Language Learners.

Fourth, data on only Texas students were analyzed in this article. As such, the ability to generalize to English Language Learners in other states is not known. English Language Learners in other states may perform differently in their reading achievement from English Language Learners in Texas. Fifth, researchers are encouraged to conduct longitudinal studies. That is, researchers could follow the progress of students from Grades 1 through graduation to determine how the reading achievement gap change over time. Finally, only quantitative data were analyzed in this investigation. Accordingly, researchers are encouraged to conduct qualitative and mixed methods research studies to

examine in more depth the reading performance of students than is possible in solely quantitative analyses.

Conclusion

Analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among Asian, White, Black and Hispanic English Language Learners for three school years. In all cases, a clear stair-step of reading achievement (Carpenter et al., 2006) was revealed. Asian English Language Learners consistently outperformed all other ethnic/racial groups of students in their reading performance. The reading performance of White, Black, and Hispanic English Language Learners was similar in all three school years.. Findings delineated herein were congruent with previous research results (Bohrnstedt et al., 2015; Harvey et al., 2013; McGown, 2016).

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Table 3.1

Frequencies and Percentages for the Grade 3 Reading Phase-in 1 Satisfactory Performance Standard of English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Asian	4,093	77.4%	1,197	22.6%
White	1,088	70.4%	458	29.6%
Hispanic	60,454	66.7%	30,233	33.3%
Black	680	69.6%	297	30.4%
2013-2014				
Asian	40,99	76.2%	1,278	23.8%
White	1,291	67.9%	609	32.1%
Hispanic	59,634	64.3%	33,123	35.7%
Black	762	65.7%	398	34.3%
2014-2015				
Asian	4,472	76.5%	1,373	23.5%
White	1,428	65.4%	757	34.6%
Hispanic	61,295	64.8%	33,307	35.2%
Black	757	63.8%	430	36.2%

Table 3.2

Frequencies and Percentages for the Grade 3 Reading Phase-in 2 Satisfactory Performance Standard of English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Asian	2,981	56.4%	2,309	43.6%
White	714	46.2%	832	53.8%
Hispanic	38,477	42.4%	52,210	57.6%
Black	443	45.3%	534	54.7%
2013-2014				
Asian	3,229	60.1%	2,148	39.9%
White	936	49.3%	964	50.7%
Hispanic	39,900	43.0%	52,857	57.0%
Black	553	47.7%	607	52.3%
2014-2015				
Asian	4,041	69.1%	1,804	30.9%
White	1,206	55.2%	979	44.8%
Hispanic	49,600	52.4%	45,002	47.6%
Black	636	53.6%	551	46.4%

Table 3.3

Frequencies and Percentages for the Grade 3 Reading Final Satisfactory Academic Performance Standard of English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Asian	2,010	37.9%	3,298	62.1%
White	448	29.0%	1,098	71.0%
Hispanic	23,310	25.5%	68,013	74.5%
Black	265	27.0%	717	73.0%
2013-2014				
Asian	2,238	41.4%	3,162	58.6%
White	599	31.4%	1,306	68.6%
Hispanic	24,726	26.5%	68,670	73.5%
Black	339	29.2%	821	70.8%
2014-2015				
Asian	2,516	43.0%	3,329	57.0%
White	592	27.1%	1,593	72.9%
Hispanic	23,666	25.0%	70,936	75.0%
Black	331	27.9%	856	72.1%

Table 3.4

Frequencies and Percentages for the Grade 3 Reading Level III Advanced Academic Performance Standard of English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Asian	899	16.9%	4,409	83.1%
White	190	12.3%	1,356	87.7%
Hispanic	9,731	10.7%	81,592	89.3%
Black	95	9.7%	887	90.3%
2013-2014				
Asian	823	15.2%	4,577	84.8%
White	195	10.2%	1,710	89.8%
Hispanic	9,044	9.7%	84,352	90.3%
Black	105	9.1%	1,055	90.9%
2014-2015				
Asian	1,331	22.6%	4,548	77.4%
White	261	11.9%	1,930	88.1%
Hispanic	10,538	11.1%	84,781	88.9%
Black	159	13.4%	1,028	86.6%

Table 3.5

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 1 Scores for English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Asian	5,290	4.15	1.61
White	1,546	3.78	1.64
Hispanic	90,687	3.52	1.57
Black	977	3.74	1.71
2013-2014			
Asian	5,377	4.24	1.63
White	1,900	3.82	1.65
Hispanic	92,757	3.69	1.61
Black	1,160	3.81	1.71
2014-2015			
Asian	5,879	4.00	1.63
White	2,191	3.50	1.67
Hispanic	95,319	3.58	1.58
Black	1,187	3.56	1.68

Table 3.6

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 2 Scores for English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Asian	5,290	11.14	3.91
White	1,546	10.31	3.94
Hispanic	90,687	10.25	3.79
Black	977	10.27	4.16
2013-2014			
Asian	5,377	11.90	3.9
White	1,900	11.09	4.04
Hispanic	92,757	10.46	3.81
Black	1,160	10.95	4.13
2014-2015			
Asian	5,879	11.51	4.13
White	2,191	10.13	4.23
Hispanic	95,319	10.08	3.92
Black	1,187	10.04	4.32

Table 3.7

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 3 Scores for English Language Learners by Their Ethnicity/Race in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Ethnicity/Race	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Asian	5,290	10.13	3.57
White	1,546	9.50	3.56
Hispanic	90,687	9.22	3.36
Black	977	9.13	3.67
2013-2014			
Asian	5,377	10.00	3.43
White	1,900	9.09	3.63
Hispanic	92,757	8.94	3.34
Black	1,160	8.80	3.61
2014-2015			
Asian	5,879	10.71	3.64
White	2,191	9.40	3.64
Hispanic	95,319	9.34	3.38
Black	1,187	9.33	3.82

CHAPTER IV
DIFFERENCES IN READING ACHIEVEMENT BETWEEN GRADE 3 ENGLISH
LANGUAGE LEARNER BOYS AND GIRLS: A TEXAS, MULTIYEAR
INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Analyzed in this investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed between English Language Learner boys and English Language Learner girls. Data were obtained on the reading performance of all Grade 3 English Language Learner boys and girls for three school years. Inferential statistical analyses revealed that English Language Learner girls had statistically significantly better reading performance than English Language Learner boys in all three school years. Implications for policy and practice, as well as recommendations for future research, are provided.

Keywords: English Language Learners, Gender, Texas, STAAR, Reading, Achievement Gaps

DIFFERENCES IN READING ACHIEVEMENT BETWEEN GRADE 3 ENGLISH
LANGUAGE LEARNER BOYS AND GIRLS: A TEXAS, MULTIYEAR
INVESTIGATION

English Language Learners are students whose native language was one other than English. The population of students in the United States who are English Language Learners has increased by 4.4 million students, or 0.5% over the last 10 years (National Center for Education Statistics, 2015). This population has steadily increased over the last decade and is projected to continue to grow. Specifically in reference to Texas, the Texas Education Agency (2016) reported that the enrollment of English Language Learners increased by 269,091, or 37.8%, between the 2005-2006 and the 2015-2016 school years. In the 2005-2006 school year, 15.7% of the population were identified as English Language Learners whereas during the 2015-2016 school 18.5 % of the students were identified English Language Learners. Given this increase in the English Language Learner population in Texas in recent years, educational leaders need to know how to address their unique academic needs. Though non-native English speakers have been present in public schools for decades, with the addition of standardized testing and accountability, a strong emphasis has been focused on all students meeting expectations.

In a recent National Assessment of Educational Progress report, Fry (2007) analyzed the results from the 2005 mathematics and reading assessments given to a random sample of Grade 4 and 8 students in the United States. In this national sample, English Language Learners had statistically significantly lower mathematics and reading assessments than their peers in Grade 4. These achievement gaps increased from Grade 4 to Grade 8 for English Language Learners.

More recently, Polat, Zarecky-Hodge, and Schreiber (2016) analyzed data from the National Assessment of Educational Progress exams for students in Grade 4 and Grade 8. In their investigation, they compared the reading and mathematics performance of English Language Learners to their native-English speaking peers from 2003 through 2011. In their analyses, native-English speaking boys and girls had statistically significantly higher reading and mathematics test scores than their English Language Learner peers. Similar to previous research, Polat et al. (2016) established that the achievement gaps in reading and in mathematics was steady or slightly widening over the time period in their study.

With reference to student gender, Wei, Liu, and Barnard-Brak (2015) reviewed data on 8,503 participants in the Early Childhood Longitudinal Study-Kindergarten cohort. These data were derived from a national longitudinal study with a sample of over 20,000 participants who were in kindergarten during the 1998-1999 school year. Wei et al. (2015) documented that girls had an initial score higher than boys and a greater growth rate in reading than boys. Other researchers (e.g., Denton & West, 2002; Marks, 2008; Martinez, Slate, & Martinez-Garcia, 2014) have also provided evidence that girls outperform boys in reading. Due to the early advantages that girls have, they continue to outperform boys throughout their educational careers. Concerning mathematics, boys outperform girls in the later grades (Wei et al., 2015).

In a statewide Texas investigation, Rojas-LeBouef (2010) explored the extent to which achievement gaps persisted in Texas for Grade 5 students in reading and mathematics over a 16-year period from 1993 until 2009. During that time span, the Texas Education Agency transitioned from the Texas Assessment of Academic Skills to

the Texas Assessment of Knowledge and Skills, thus resulting in some years not having compatible tests. Even so, in all instances, English Language Learners had statistically significantly lower average reading and mathematics test scores than Hispanic non-English Language Learners. Despite the school reform efforts implemented because of the mandates of No Child Left Behind Act (2001), students who were English Language Learners continue to obtain lower test scores than their White peers. Part of this separation of achievement is due to the “White flight” or decreased enrollment of Whites in public schools (Reber, 2005, p. 560). This movement of White students to public school has increased the achievement gap within the public and private schools (Kahlenberg, 2001; Reber, 2005).

In an empirical statewide analysis in Texas, Combs et al. (2009) examined gender differences in college readiness in reading, in mathematics, and in both subject areas. They analyzed data from the Scholastic Assessment Test (SAT) and the American College Test (ACT) for the 2005-2006 and the 2006-2007 school years. In their Texas statewide investigation, they documented that girls had statistically significantly better college readiness skills in reading and in both subjects, whereas boys had statistically significantly better mathematics college readiness skills. In their study, slightly more than one third, 38.76%, of boys were college-ready reading, compared to over half, 51.01%, of girls who were college-ready in reading. Statistically significant differences were also determined by Combs et al. (2009) between boys and girls in their percentages of taking the SAT or ACT. In their investigation, 66.7% of girls took the ACT or SAT compared to a smaller percentage, 59.7%, of boys who took the ACT or the SAT.

In a similar study in Texas, Vijil, Combs, and Slate (2012) compared the science passing rates of boys and girls. They used the Texas state-mandated science assessment for students in Grades 5, 8, and 11 for three consecutive school years. In each of the three grade levels and in each of the three school years, boys had statistically significantly higher passing rates on the science exam than did girls. Given that the need for science related jobs has increased, it is imperative to address the gender gap to ensure equality for all (Morris, Slate, & Moore, 2015).

In another recent study conducted in Texas, McGown (2016) analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 boys and girls. McGown (2016) established that girls had statistically significantly higher reading scores than boys in each of the three school years. Grade 3 girls outscored boys on each of the three Reading Reporting Categories and on the Level II Final Satisfactory Performance Standard in all four school years. Effect sizes for her statistically significant results ranged from trivial to moderate.

In a similar study in Texas, Anderson, Moore, and Slate (2017) examined the State of Texas Assessment of Academic Readiness Mathematics and Science scores for Grade 8 boys and girls for four consecutive school years. Congruent with previous researchers, boys statistically significantly outperformed girls in both mathematics and in science, with one exception, where in one school year, boys and girls had similar mathematics scores. With the underrepresentation of girls in Science, Technology, Engineering, and Mathematics (STEM) careers, changes to the practices of teachers and educational leaders is needed (Morris et al., 2015).

Specifically in reference to English Language Learners, Rojas and Iglesias (2013) collected narrative language samples over a 3-year period, including six samples between kindergarten and second grade. Rojas and Iglesias (2013) documented that girls outperformed boys in their growth rates across outcome measures throughout the duration of the study. This disparity was present in both English and in Spanish, and could contribute to the achievement gap between boys and girls.

Statement of the Problem

With the student population in the United States changing to include a higher percentage of students whose primary language is not English, further research on this population and their academic performance is essential. Given the previous research on the existence of gender differences in student academic achievement, the degree to which those findings would be generalizable to English Language Learners specifically is not known. As such, empirical research into whether achievement gaps might be present between English Language Learner boys and English Language Learner girls could provide useful information. In the literature on gender differences that was discussed previously, comparisons were made between boys and girls in their reading, mathematics, and science performance. These authors, however, did not address gender differences within groups of student such as English Language Learners. That is, to what degree do English Language Learner boys and English Language Learner girls differ in their academic achievement?

Purpose of the Study

The purpose of this study was to examine the degree to which differences were present between Grade 3 English Language Learner boys and girls in their reading

performance. Of particular interest in this multiyear analysis was the degree to which English Language Learner boys and girls differed in their reading achievement on the Texas state-mandated reading assessment. Through examining three years of Texas statewide data, the extent to which a trend was present in the reading performance of Texas Grade 3 English Language Learner boys and girls was ascertained.

Research Questions

The following research questions were addressed in this multiyear analysis: (a) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Level II Academic Performance measures (i.e., Phase in 1, Phase in 2, and Final Satisfactory)?; (b) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Level III Academic Performance?; (c) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Category 1: Understanding Across Genres.?; (d) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Category 2: Understanding/Analysis of Literary?; (e) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Category 3: Understanding/Analysis of Informational Texts?; (f) What trend is present over time between Grade 3 English Language Learner boys and girls in their STAAR Reading Level II Academic Performance measures?; and (g) What trend is present between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Categories scores? The first five research questions were repeated for the 2012-2013, 2013-2014, and 2014-2015 school years whereas the last two

research questions were comparisons across these three school years. As such, a total of 17 research questions was present in this empirical investigation.

Method

Research Design

For this investigation, the research design that was present was a causal-comparative investigation (Johnson & Christensen, 2012). Archival data were analyzed in this multiyear investigation. A causal-comparative research design was present because the independent variable of gender is not alterable and the dependent variables of student reading scores had already occurred. When archival data are analyzed, neither the independent variable nor the dependent variables can be manipulated (Johnson & Christensen, 2012).

Participation and Instrumentation

Participants in this study were Grade 3 English Language Learner boys and girls who completed the State of Texas Assessment of Academic Readiness Reading assessments during the 2012-2013, 2013-2014, and/or 2014-2015 school year. English Language Learners are students who are “in the process of acquiring English and has another language as the first native language” (Chapter 89.1203 of Texas Education Code). During the 2011-2012 school year, Texas changed the mandatory standardized achievement test from the Texas Assessment of Knowledge and Skills to the State of Texas Assessment of Academic Readiness. With this change, Texas changed from assessing students on basic skills to assessing students on the application of the knowledge and skills (Texas Education Agency, 2013). Students are assessed in reading in Grades 3 through 8.

On each assessment, test creators use the blueprint to determine which Texas Essential Knowledge and Standards are tested each year. Texas Essential Knowledge and Skills are further delineated into Readiness Standards and Supporting Standards. Readiness Standards vary for each grade level and content area but are most critical for students to be successful in the current grade level and to be prepared for the next course (Texas Education Agency, 2016b). Supporting Standards are concepts and content that are newly introduced in the current grade level and prepare students for the next grade level but not critical for students to master the current grade level (Texas Education Agency, 2016b).

The Texas Education Agency defines reading skills across three reporting categories of the State of Texas Assessment of Academic Readiness Reading exam in Grade 3. Students' ability to demonstrate basic reading understanding across genres (i.e., fiction, poetry, drama, literary non-fiction, expository, persuasive) by determining "the meaning of grade-level academic words in English, using context to determine the meaning of unfamiliar words, and comparing and contrasting themes or moral lessons" is assessed in Reporting Category 1 (Texas Education Agency Student Assessment Division, 2011, para. 3). In Reporting Category 2, students must demonstrate the ability "to comprehend and analyze literary texts (i.e., fiction, poetry, drama, literary nonfiction) for elements such as foreshadowing, character development, sensory detail, and figurative language" (Texas Education Agency Student Assessment Division, 2011, para. 4). For Reporting Category 3, students must be able "to comprehend and analyze informational texts (i.e., expository, persuasive) by demonstrating the ability to summarize the main idea and supporting details, analyze organizational patterns and text

features, and make logical connections between ideas and across texts” (Texas Education Agency Student Assessment Division, 2011, para. 5). To that end, questions remain regarding the degree of literacy students have and the extent to which disparities exist by economic status.

The Texas Education Agency has created three levels of performance: Level 1: Unsatisfactory Academic Performance, Level 2: Satisfactory Academic Performance, and Level 3: Advanced Academic Performance (Texas Education Agency, 2013). As the STAAR exam was new, the Texas Education Agency gradually increased the performance standard (i.e., Phase-in 1, Phase-in 2, Final Satisfactory). To ensure score validities and score reliabilities, the Texas Technical Advisory Committee conducted numerous studies. External studies were compared to the SAT and ACT as well as vertical scale studies that allowed a comparison of student performance across grades within a content area (Texas Education Agency, 2013). Readers are directed to the Texas Education Agency website for further information regarding score validities and score reliabilities for the STAAR Reading assessments.

Results

To determine whether a difference was present in the Level II Phase-in 1, Phase-in 2, and Final Satisfactory performance standards for English Language Learners boys and girls, Pearson chi-square procedures were performed. This statistical procedure was most appropriate to use because both the independent variable of gender and the STAAR Reading test dependent variables (i.e., met or did not meet standard) were categorical in nature and constituted frequency data. As such, the optimal inferential statistical

procedure was the Pearson chi-square technique (Field, 2013). Given that the sample size was greater than five per cell, its underlying assumptions were met.

Research Question One Results

Concerning the Level II Phase-in 1 Satisfactory Performance Standard of English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 473.12, p < .001$. The effect size, Cramer's V, was below small, .07 (Cohen, 1988). As revealed in Table 4.1, English Language Learner girls had statistically significantly higher passing rates, 6.5% higher, than English Language Learner boys.

 Insert Table 4.1 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(1) = 475.10, p < .001$, and yielded an effect size, Cramer's V, that was below small, .09 (Cohen, 1988). Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard, 6.5% higher, than English Language Learner boys. Descriptive statistics for this analysis are contained in Table 4.1.

Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 671.08, p < .001$, Cramer's V of .08, a below small effect size (Cohen, 1988). Similar to the previous two school years, English Language Learner girls had the highest percentage who met this Phase-in standard, 7.6% higher, than English Language Learner boys. Delineated in Table 4.1 are the descriptive statistics for this school year.

Concerning the Level II Phase-in 2 Satisfactory Performance Standard for English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 343.10, p < .001$. The effect size, Cramer's V, was below small, .06 (Cohen, 1988). As revealed in Table 4.2, English Language Learner girls had the highest met standard, 5.8% higher, than the English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard.

 Insert Table 4.2 about here

With respect to the 2013-2014 school year, a statistically significant difference was revealed, $\chi^2(1) = 370.81, p < .001$, and yielded an effect size, Cramer's V, .06, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard, 6.0% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Descriptive statistics for this analysis are contained in Table 4.2.

Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 578.66, p < .001$. The effect size, Cramer's V, was below small, .08 (Cohen, 1988). Similar to the previous two school years, English Language Learner girls had the highest percentage who met this standard, 7.4% higher, than English Language Learner boys. Delineated in Table 4.2 are the descriptive statistics for this school year.

Concerning the Level II Final Satisfactory Performance Standard for English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 316.14, p < .001$. The effect size, Cramer's V, was below

small, .05 (Cohen, 1988). As presented in Table 4.3, English Language Learner girls had the highest met standard rates, 4.5% higher, on this Phase-in standard than English Language Learner boys.

 Insert Table 4.3 about here

With respect to the 2013-2014 school year, a statistically significant difference was revealed, $\chi^2(1) = 262.43$, $p < .001$, and yielded an effect size, Cramer's V, .05, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard achievement, 4.5% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Descriptive statistics for this analysis are contained in Table 4.3.

Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(1) = 316.14$, $p < .001$, Cramer's V of .10, a small effect size (Cohen, 1988). Similar to the previous school years, English Language Learner girls again had the highest met standard achievement, 2.3% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Delineated in Table 4.3 are the descriptive statistics for this school year.

Research Question Two Results

Concerning the Level III Advanced Academic Performance of English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 152.49$, $p < .001$. The effect size, Cramer's V, was below small, .04 (Cohen, 1988). As presented in Table 4.4, English Language Learner girls had the

highest met standard rates on this performance standard, 2.5% higher, than English Language Learner boys.

 Insert Table 4.4 about here

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(1) = 216.61, p < .001$, and yielded an effect size, Cramer's V, .05, that was below small (Cohen, 1988). Similar to the 2012-2013 school year, English Language Learner girls had the highest passing rates, 2.8% higher, than English Language Learner boys on the Level III Advanced Academic Performance standard. Descriptive statistics for this analysis are contained in Table 4.4.

Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 234.43, p < .001$. The effect size, Cramer's V, .05, was below small (Cohen, 1988). Similar to the previous two school years, English Language Learner girls had the highest percentage who met this performance standard, 3.0% higher, than English Language Learner boys. Delineated in Table 4.4 are the descriptive statistics for this school year.

Research Question Three Overall Results

Prior to conducting a multivariate analysis of variance (MANOVA) statistical procedure to answer the third research question, its underlying assumptions were checked. Specifically data normality, Box's Test of Equality of Covariance, and Levene's Test of Equality of Error Variances were examined. Although the assumptions

for the MANOVA procedure were not all met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2013).

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98$, $p < .001$, partial $\eta^2 = .02$, in overall reading performance as a function of gender. Using Cohen's (1998) criteria, the effect size was small. With respect to the 2013-2014 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98$, $p < .001$, partial $\eta^2 = .02$, in overall reading performance as a function of gender. Using Cohen's (1988) criteria, the effect size was small. Similarly for the 2014-2015 school year, the MANOVA revealed a statistically significant overall difference, Wilks' $\Lambda = .99$, $p < .001$, partial $\eta^2 = .01$, in reading performance as a function of gender. Using Cohen's (1988) criteria, the effect size was small. Because the MANOVAs for each school year revealed the presence of statistically significant differences in aggregated reading performance by student gender, univariate follow-up analysis of variance (ANOVA) procedures were calculated on each of the three STAAR Reading Reporting categories.

Research Question Three Reading Reporting: Category 1 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 161.01$, $p < .001$, $\eta^2 = .002$, a trivial effect size (Cohen, 1988). As revealed in Table 4.5, English Language Learner girls had an average raw score that was 0.13 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 1.

Insert Table 4.5 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 1 raw scores between English Language Learner boys and girls, $F(1, 101633) = 105.36, p < .001, \eta^2 = .001$, a trivial effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.10 points higher than the average raw score of English Language Learner boys. Delineated in Table 4.5 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 193.56, p < .001, \eta^2 = .002$, a trivial effect size (Cohen, 1988). As revealed in Table 4.5, English Language Learners girls had an average raw score that was 0.14 points higher than the average raw score of English Language Learner boys.

Research Question Four Reading Reporting Category 2 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 1325.51, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). As presented in Table 4.6, English Language Learner girls had an average raw score that was 0.87 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 2.

Insert Table 4.6 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 2 raw scores between English Language Learner boys and girls, $F(1, 101633) = 1499.23, p < .001, \eta^2 = .02$, small effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.93 points higher than the average raw score of English Language Learner boys. Delineated in Table 4.6 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 1073.13, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.80 points higher than the average raw score of English Language Learner boys. Descriptive statistics for this analysis are delineated in Table 4.6.

Research Question Five Reading Reporting Category 3 Results

Regarding the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 206.44, p < .001, \eta^2 = .002$, a trivial effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.31 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 3. Presented in Table 4.7 are the descriptive statistics for this analysis.

Insert Table 4.7 about here

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 3 raw scores between English Language Learner boys and girls, $F(1, 101633) = 238.30, p < .001, \eta^2 = .002$, a trivial effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.33 points higher than the average raw score of English Language Learner boys. Delineated in Table 4.7 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 529.84, p < .001, \eta^2 = .01$, a small effect size (Cohen, 1988). English Language Learner girls had an average raw score that was 0.48 points higher than the average raw score of English Language Learner boys. Table 4.7 contains the descriptive statistics for this analysis.

Research Question Six Trend over Time Reading Level II Results

In all three school years, English Language Learner girls had statistically significantly higher met standard performance on the Phase-in 1 standard than English Language Learner boys. The reading gap in the percentages who met this performance standard varied slightly between years, with the largest gap, 7.6%, in the 2014-2015 school year. The average met percentage gap between English Language Learner girls and boys during these three school years was 6.9%.

For the Phase-in 2 Academic Performance standard in all three school years, English Language Learner girls had higher percentages who met this standard than English Language Learner boys. The average percentage gap on this standard was 6.4%. The gap in the percentages who met this standard varied slightly each year, with the largest gap, 7.4%, in the 2014-2015 school year. The smallest gap in the percentages, 5.8%, was in the 2012-2013 school year.

The Final Satisfactory achievement standard had the smallest gap in the percentages of English Language Learner girls and boys who met this standard. English Language Learner girls had a higher percentage who met this standard, 3.8%, than English Language Learner boys. The percentage gap varied slightly, with the smallest gap, 2.3%, between English Language Learner girls and boys in the 2014-2015 school year.

Research Question Seven Trend over Time STAAR Reading Reporting Categories

On the Grade 3 STAAR Reading exam, six questions were aligned with Reporting Category 1, 18 questions for Reporting Category 2, and 16 questions for Reporting Category 3 in each of the 2012-2013 through 2014-2015 school years. English Language Learner girls had on average score that was 0.12 points higher than the average score of English Language Learner boys in Reporting Category 1, 0.87 points higher in Reporting Category 2, and 0.37 points higher in Reporting Category 3. The largest gap, 0.14, for the STAAR Reading Reporting Category 1 was in the 2014-2015 school year. The largest gap, 0.93, between English Language Learner boys and girls was in the 2013-2014 school year for Reporting Category 2. The largest gap, 0.48, for Reporting Category 3 was in the 2014-2015 school year.

Discussion

In this investigation, the extent to which differences in the reading performance of English Language Learner girls and boys was examined. Three years of statewide data were obtained and analyzed on the STAAR Reading test for English Language Learner girls and boys who were enrolled in Grade 3 during the 2012-2013 through 2014-2015 school years. In every comparison, English Language Learner girls outperformed English Language Learner boys on the Grade 3 STAAR Reading exam. The average achievement gap on the met standard rate (Phase-in 1, Phase-in 2, and Final Satisfactory) was 5.9%. For the Level III Advanced Performance standard, English Language Learner girls performed higher than English Language Learner boys by an average of 2.7%. With an average population of 101,859 English Language Learners each year taking the Grade 3 Reading STAAR, 2.7% of the population would equate to around 2,750 more English Language Learner girls meeting Level III standard and 6,010 English Language Learner girls reaching the met standard rates each year.

Connections with Existing Literature

Historically, girls have outperform boys in reading (Combs et al., 2009; McGown, 2016). With the additional analysis of English Language Learners, the results from this empirical study were aligned with previous researchers (Combs et al., 2010; McGown, 2016; Rojas & Iglesias, 2013) who established that girls outscore boys on assessments in the area of reading. This difference in performance can be attributed to the fact that girls in general demonstrate higher scores at earlier grades (Wei et al., 2015), placing them at an advantage in reading at the early years. Though the achievement gap was small, it is still a concern for educators to ensure an equitable outcome for all students in all subjects.

Implications for Policy and for Practice

Several implications for policy and for practice can be made based upon the results of this investigation. First, additional resources (e.g., student manipulatives and experiential learning) in the classroom can be used to provide hands-on learning for English Language Learners to increase their English proficiency and their academic achievement. Second, a Literacy coach could be utilized for campuses to aide in the strengthening of students reading ability. This coach could provide additional supports to English Language Learners who are behind their peers and provide 1-1 instruction. Third, school districts could provide ongoing professional development for new and veteran teachers on research based and student focused practices. Fourth, English Language Learners could be assessed in ways other than standardized tests that might provide a different measurement of their knowledge. Abedi (2010) suggested the linguistic complexity of standardized tests such as the STAAR may be partly responsible for the performance gaps between English Language Learners and their peers. Because additional supports are needed, further collaborative efforts among federal, state, and local educational authorities to close the achievement gap are needed.

Although the gaps in reading between English Language Learner girls and boys was relatively small, these results warrant attention because Grade 3 is the first school year in which the state-mandated assessment is administered to students. The degree to which the reading gaps have changed since the first grade and/or will continue to change warrants examination. As literacy is a foundational skill that is applicable to other skills, it is imperative to have all students proficient. With the addition of Science, Technology,

Engineering, and Mathematics careers, changes to instructional practices and policy need to occur to ensure the success of all students.

Recommendations for Future Research

From the results of this empirical multiyear investigation, recommendations for future research can be made. First, this investigation was conducted on data on only Grade 3 English Language Learners in Texas. As such, the generalizability to English Language Learners in other grade levels is not known. Researchers are encouraged to examine the reading achievement of English Language Learners at other grade levels. Second, data on only English Language Learners were analyzed in this investigation. Accordingly, researchers are encouraged to analyze data on other student groups, such as students who are at-risk and students in special education. Third, only the reading performance of English Language Learners was addressed in this article. Researchers are encouraged to examine academic achievement in other areas such as mathematics, science, social studies, and writing. The extent to which the gaps documented herein in reading are present in other academic areas is not known.

Fourth, data on only Texas English Language Learners were analyzed in this article. The extent to which the results of this study on only Texas English Language Learners would be generalizable to English Language Learners in other states is not known. Fifth, researchers are encouraged to perform longitudinal investigations in which the academic performance of students is followed over time. The degree to which gaps are present upon entry to kindergarten and the degree to which they change or remain stable warrants investigation. Lastly, researchers are encouraged to conduct both qualitative and mixed methods research studies. Such investigations would permit an

examination of the academic achievement of students in more depth than is possible in a purely quantitative investigation.

Conclusion

Analyzed in this investigation were the current Texas state-mandated assessments in reading for English Language Learner boys and girls. The degree to which gender differences were present on the STAAR Reading measures was addressed for three school years. Inferential statistical analyses revealed that English Language Learner girls had statistically significantly better reading performance than English Language Learner boys in all three school years. As such, results were supportive of the continued presence of a gender gap in reading performance.

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Table 4.1

Frequencies and Percentages for the Grade 3 Reading Phase-in 1 Satisfactory Performance Standard of English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Boys	32,766	64.2%	18,291	35.8%
Girls	33,779	70.7%	14,020	29.3%
2013-2014				
Boys	32,722	61.9%	20,148	38.1%
Girls	33,364	68.4%	15,401	31.6%
2014-2015				
Boys	33,479	61.8%	20,705	38.2%
Girls	34,811	69.4%	36,039	30.6%

Table 4.2

Frequencies and Percentages for the Grade 3 Reading Phase-in 2 Satisfactory Performance Standard of English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Boys	20,653	40.5%	30,404	59.5%
Girls	22,127	46.3%	25,672	53.7%
2013-2014				
Boys	21,797	41.2%	31,073	58.8%
Girls	23,032	47.2%	25,733	52.8%
2014-2015				
Boys	27,024	49.9%	27,160	50.1%
Girls	28,738	57.3%	21,407	42.7%

Table 4.3

Frequencies and Percentages for the Grade 3 Reading Final Satisfactory Performance Standard of English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Boys	12,407	24.1%	39,079	75.9%
Girls	13,716	28.6%	34,313	71.4%
2013-2014				
Boys	13,439	25.2%	39,864	74.8%
Girls	14,569	29.7%	34,430	70.3%
2014-2015				
Boys	12,892	23.8%	41,292	76.2%
Girls	14,358	26.1%	35,787	73.9%

Table 4.4

Frequencies and Percentages for the Grade 3 Reading Level III Advanced Academic Performance Standard of English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	Met Standard		Did Not Meet Standard	
	<i>n</i>	%	<i>n</i>	%
2012-2013				
Boys	5,059	9.8%	46,427	90.2%
Girls	5,897	12.3%	42,132	87.7%
2013-2014				
Boys	4,610	8.6%	48,693	91.4%
Girls	5,590	11.4%	43,409	88.6%
2014-2015				
Boys	5,633	10.3%	49,051	89.7%
Girls	6,727	13.3%	43,675	86.7%

Table 4.5

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 1 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Boys	51,057	3.50	1.60
Girls	47,799	3.63	1.57
2013-2014			
Boys	52,870	3.68	1.65
Girls	48,765	3.78	1.59
2014-2015			
Boys	54,684	3.53	1.62
Girls	50,402	3.67	1.56

Table 4.6

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 2 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Boys	51,057	9.88	3.80
Girls	47,799	10.75	3.76
2013-2014			
Boys	52,870	10.11	3.84
Girls	48,765	11.04	3.77
2014-2015			
Boys	54,684	9.78	3.95
Girls	50,402	10.58	3.93

Table 4.7

Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 3 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Boys	51,057	9.12	3.42
Girls	47,799	9.43	3.33
2013-2014			
Boys	52,870	8.84	3.38
Girls	48,765	9.17	3.32
2014-2015			
Boys	54,684	9.19	3.47
Girls	50,402	9.67	3.34

CHAPTER V

DISCUSSION

The purpose of this journal-ready dissertation was to examine the degree to which differences were present in the reading achievement of Grade 3 English Language Learners by their economic status, ethnicity/race, and gender. Specifically analyzed in the first investigation were the current Texas state-mandated assessments in reading and the extent to which test scores differed among English Language Learners who were Not Poor (i.e., did not qualify for the reduced or free lunch program), for English Language Learners who were Moderately Poor (i.e., qualified for the reduced lunch program), and for English Language Learners who were Extremely Poor (i.e., qualified for the free lunch program). In the second investigation, the current Texas state-mandated assessment in reading was examined to determine the extent to which test scores differed by the ethnicity/race (i.e., Asian, Black, Hispanic, and White) of English Language Learners. The purpose of the third investigation was to ascertain the degree to which reading scores were different between English Language Learner boys and girls. By examining three years of Texas statewide data in each article, the degree to which trends were present in the reading performance by the economic status, ethnicity/race, and gender of Grade 3 English Language Learners was determined.

In this chapter, results are discussion and a summary of each of the three articles is provided. Also, implications for policy and practices are discussed. Finally, recommendations for future research are provided.

Summary of Results for Article One

In all three school years, English Language Learners who were Very Poor had statistically significantly lower met standard performance on the Phase-in 1 standard than either English Language Learners who were Moderately Poor or English Language Learners who were Not Poor. English Language Learners who were Moderately Poor had statistically significantly lower met standard performance than English Language Learners who were Not Poor. As such, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their economic status. The met standard gap varied slightly between years, with the largest gap between English Language Learners who were Not Poor and English Language Learners who were Very Poor in the 2013-2014 school year with a 12.8% gap and the smallest gap during the 2014-2015 school year with an 11.4% gap. English Language Learners who were Moderately Poor had similar met standard rates as the Not Poor group, with an average achievement gap of 3.8% whereas the average achievement gap between English Language Learners who were Moderately Poor and English Language Learners who were Very Poor was 8.4%.

Regarding the Phase-in 2 Academic Performance in all three school years, English Language Learners who were Very Poor consistently had statistically significantly lower met standard rates both English Language Learners who were Not Poor and English Language Learners who were Moderately Poor. Similarly, English Language Learners who were Moderately Poor had statistically significantly lower met standard rates than English Language Learners who were Not Poor in each of the three years. The met standard achievement gap varied slightly between years, with the largest

gap between the English Language Learners who were Not Poor and English Language Learners who were Very Poor in the 2013-2014 school year with a 15.4% gap and smallest in the 2014-2015 school year with a 14.3% gap. English Language Learners who were Moderately Poor had similar met standard performance with English Language Learners who were Not Poor, with an average met standard gap of 5.8% whereas the average achievement gap between the English Language Learners who were Moderately Poor and English Language Learners who were Very Poor was 9.0%.

For the three school years, the Final Satisfactory Performance met standard had the smallest gap. Though the performance of English Language Learners who were Very Poor on the met standard was statistically significantly lower than the performance of English Language Learners who were Moderately Poor and English Language Learners who were Very Poor, the difference was small. The met Final Satisfactory standard gap varied slightly between years, with the largest gap between English Language Learners who were Not Poor and English Language Learners who were Very Poor in the 2014-2015 school year with a 13.5% gap and smallest in the 2012-2013 school year with a 12.8% gap. English Language Learners who were Moderately Poor and English Language Learners who were Not Poor had an average achievement gap of 6.2% on this standard. The average gap between English Language Learners who were Moderately Poor and English Language Learners who were Very Poor was 7.0%.

Concerning the Reading STAAR Grade 3 Reporting Category 1 raw scores, in each of the three school years, English Language Learners who were Very Poor had statistically significantly lower average scores than English Language Learners who were Not Poor and English Language Learners who were Moderately Poor. On average,

English Language Learners who were Very Poor had an average raw score that was 0.51 raw points lower than the average raw score of English Language Learners who were Not Poor and an average of 0.28 raw points lower than the average raw score of English Language Learners who were Moderately Poor. English Language Learners who were Moderately Poor were on average raw score that was 0.23 raw points lower than the average raw score of English Language Learners who were Not Poor. Accordingly, a clear stair step (Carpenter et al., 2006) of achievement was revealed for English Language Learners by their economic status.

With respect to the Reading STAAR Grade 3 Reporting Category 2, the average raw scores of English Language Learners who were Very Poor were statistically significantly lower than the average raw scores of English Language Learners who were Not Poor and the average raw scores of English Language Learners who were Moderately Poor. English Language Learners who were Very Poor had an average raw score that was 1.22 raw points lower than the average raw score of English Language Learners who were Not Poor and an average raw score that was 0.80 points lower than the average raw score of English Language Learners who were Moderately Poor.

Regarding the Reading Reporting Category 3 STAAR Grade 3 raw scores, English Language Learners who were Very Poor had statistically significantly lower average raw scores than English Language Learners who were Not Poor and English Language Learners who were Moderately Poor. English Language Learners who were Very Poor had an average raw score that was 1.10 points lower than the average raw score of English Language Learners who were Not Poor and an average raw score that was 0.69 points lower than the average raw score of English Language Learners who

were Moderately Poor. English Language Learners who were Moderately Poor had an average raw score that was 0.41 points lower than the average raw score of English Language Learners who were Not Poor.

Summary of Results for Article Two

For two of the three school years, Hispanic English Language Learners had statistically significantly lower met standard performance on the Phase-in 1 standard than the other three English Language Learner groups, Asian, White, and Black. In the other school year, Black English Language Learners had statistically significant lower met standard performance. The met standard gap varied slightly between years, with the largest gap between Asian English Language Learners and Black English Language Learners in the 2014-2015 school year with a 12.7% gap. The smallest gap was between Hispanic English Language Learners and Black English Language Learners, which was 1.0% during the 2014-2015 school year. The performance of Hispanic English Language Learners was congruent with the performance of Black English Language Learners, with an average difference of 2.4% in their met standard performance. Asian English Language Learners outperformed White, Hispanic, and Black English Language Learners in all three school years. White English Language Learners outperformed Black and Hispanic English Language Learners in all three years.

With respect to the Phase-in 2 Academic Performance in all three school years, Hispanic English Language Learners consistently had statistically significantly lower met standard performance than Asian, White, and Black English Language Learners. The met standard rate varied from year to year, with the largest achievement gap, 17.1%, occurring in the 2013-2014 school year between Asian English Language Learners and

Hispanic English Language Learners. For this Phase-in 2 Academic Performance standard, the performance of Hispanic English Language Learners on this met standard was similar to the performance of Black and White English Language Learners.

Hispanic English Language Learners performed statistically significantly lower than the other three ethnic/racial groups of English Language Learners in this investigation on the Final Satisfactory Academic Performance in all the three school years. The largest met standard achievement gap, 18.0%, was between Asian English Language Learners and Hispanic English Language Learners during the 2014-2015 school year. The average met standard rate for Hispanic English Language Learners was 2.4% lower than the average met standard rate for Black English Language Learners and 3.5% lower than the average met standard rate for White English Language Learners. The average met standard rate for White English Language Learners was 11.6% lower than the average met standard rate for Asian English Language Learners.

In two of the three school years, Hispanic English Language Learners had statistically significantly lower average raw scores on the STAAR Reading Grade 3 Reporting Category 1 raw score than Asian, White, and Black English Language Learners. In the 2014-2015 school year, White English Language Learners had the lowest average raw scores. On average, Hispanic English Language Learners had an average raw score that was 0.53 points lower than the average raw score of Asian English Language Learners. Similarly, White and Black English Language Learners had an average raw score lower than was 0.43 points lower than the average raw score of Asian English Language Learners.

Concerning the STAAR Reading Grade 3 Reporting Category 2 scores, Hispanic English Language Learners had the statistically significantly lowest average raw scores in two of the three school years. In the 2014-2015 school year, Black English Language Learners had the lowest average raw scores in comparison to the Asian, White, and Black English Language Learners. Hispanic English Language Learners had an average raw score that was 1.25 points lower than the average raw score of Asian English Language Learners. Black English Language Learners had a similar average raw score to Hispanic and White English Language Learners. White English Language Learners had an average raw score that was 1.01 points lower than the average raw score of Asian English Language Learners.

With respect to the STAAR Reading Reporting Category 3, Black English Language Learners had the statistically significantly lowest average raw scores in all three school years. Black English Language Learners had an average raw score that was 1.19 points lower than the average raw score of Asian English Language Learners, 0.24 points lower than the average raw score of White English Language Learners, and 0.08 points lower than the average raw score of Hispanic English Language Learners. Hispanic English Language Learners had an average raw score that was 1.11 points lower than the average raw score of Asian English Language Learners and an average raw score that was 0.16 points lower than the average raw score of White English Language Learners. White English Language Learners had on average raw score that was 0.91 points lower than the average raw score of Asian English Language Learners.

Summary of Results for Article Three

In all three school years, English Language Learner girls had statistically significantly higher met standard performance on the Phase-in 1 standard than English Language Learner boys. The reading gap in the percentages who met this performance standard varied slightly between years, with the largest gap, 7.6%, in the 2014-2015 school year. The average met percentage gap between English Language Learner girls and boys in the three school years was 6.9%.

With respect to the Phase-in 2 Academic Performance standard in all three school years, English Language Learner girls had higher percentages who met this standard than English Language Learner boys. The average percentage gap on this standard was 6.4%. The gap in the percentage who met this standard varied slightly each year, with the largest gap, 7.4%, in the 2014-2015 school year. The smallest gap in the percentages, 5.8%, was in the 2012-2013 school year.

The Final Satisfactory achievement standard had the smallest gap in the percentages of English Language Learner girls and boys who met this standard. English Language Learner girls had a higher percentage who met this standard, 3.8%, than English Language Learner boys. The percentage gap varied slightly, with the smallest gap, 2.3%, between the English Language Learner girls and boys in the 2014-2015 school year.

Regarding the Grade 3 STAAR Reading exam, six questions were aligned with Reporting Category 1, 18 questions for Reporting Category 2, and 16 questions for Reporting Category 3 in each of the 2012-2013 through 2014-2015 school years. English Language Learner girls had on average score that was 0.12 raw points higher than the

average score of English Language Learner boys in Reporting Category 1, 0.87 raw points higher in Reporting Category 2, and 0.37 raw points in Category 3. The largest gap, 0.17 points, for the STAAR Reading Reporting Category 1 was in the 2014-2015 school year. The largest gap between English Language Learner boys and girls was in the 2013-2014 school year, a 0.93 raw point difference for Reporting Category 2. The largest gap was 0.48 points for Reporting Category 3 in the 2014-2015 school year.

Connections with Existing Literature

In this investigation, the level of poverty of English Language Learners was clearly related to their reading performance on the Texas state-mandated assessment, the STAAR. The lower the poverty for English Language Learners, the lower their reading performance. These results are congruent with the existing literature (McGown, 2016; Reardon et al., 2012). Results from this study are consistent other researchers (e.g., McGown, 2016; Reardon, 2013, Wright & Slate, 2015) who documented the presence of lower reading academic performance for students in poverty from their more privileged peers.

With respect to the ethnicity/race of English Language Learners, Asian English Language Learners had the highest reading performance and outperformed other English Language Learners, results that were consistent with prior research (Bohrnstedt et al., 2015; Harvey et al., 2013; McGown, 2016). In contrast to previous research (e.g., McGown, 2016), however, White English Language Learners performed similar to the Black and Hispanic English Language Learners. Hispanic English Language Learners had the poorest reading performance throughout the three year comparison on the Grade 3 Reading STAAR.

Regarding gender, English Language Learner girls had higher reading performance than English Language Learners in all three school years. English Language Learner girls also achieved more raw points on all of three different reading categories than English Language Learner boys. These results are congruent with the extant literature that girls have better reading scores than do boys (Combs et al., 2010; McGown, 2016; Rojas & Iglesias, 2013).

Implications for Policy and for Practice

Based upon the results of this investigation, several implications for policy and for practice can be made. First, additional resources in the classroom, such as student manipulatives and experiential learning, can be used to provide hands-on learning for English Language Learners to increase their English proficiency and their academic achievement. Second, a Literacy coach could be utilized for campuses to aide in the strengthening of students reading ability. This coach could provide additional supports to English Language Learners who are behind their peers and provide 1-1 instruction. Third, school districts could provide ongoing professional development for new and veteran teachers on research based and student focused practices.

Fourth, English Language Learners could be assessed in ways other than standardized tests that might provide a different measurement of their knowledge. Abedi (2010) suggested the linguistic complexity of standardized tests such as the STAAR may be partly responsible for the performance gaps between English Language Learners and their peers. Despite awareness of the influence of economic status on student achievement from the Coleman Report (1966), the achievement gap between the rich and the poor has widened or remained the same since its publication (Reardon, 2011).

Because additional supports are needed, further collaborative efforts among federal, state, and local educational authorities to close the achievement gap are needed.

Recommendations for Future Research

Based upon the results of this empirical multiyear investigation, several recommendations for future research can be made. First, this study was only conducted on Grade 3 English Language Learners. As such, the ability to generalize results of this investigation to English Language Learners in other grade levels is limited. Accordingly, researchers are encouraged to examine the reading achievement of English Language Learners at elementary, middle, and high school grade levels. Second, data on only English Language Learners were analyzed in this investigation. Researchers are encouraged to analyze data on other groups of students such as students who are qualified for special education services and students who are at-risk. Third, this investigation was limited to the reading performance of English Language Learners. Future research is warranted on academic achievement in other areas such as mathematics, science, social studies, and writing to ascertain the extent to which achievement gaps might be present in those areas.

Fourth, data on only Texas English Language Learners were analyzed in this journal-ready dissertation. The extent to which results from this sample would be generalizable to English Language Learners in other states is not known. Researchers are encouraged to analyze the reading performance of English Language Learners in other stages. Fifth, researchers are encouraged to examine the academic achievement of English Language Learners beginning their entry into kindergarten and following their progress through high school. Are gaps present upon entry to kindergarten? What

happens to these gaps over time? Finally, only quantitative data were analyzed in this investigation. Accordingly, researchers are encouraged to conduct qualitative and mixed methods research studies to examine in more depth the reading performance of students than is possible in solely quantitative analyses.

Conclusion

In this journal-ready dissertation, the degree to which differences were present in the reading achievement of Grade 3 English Language Learners by their economic status, ethnicity/race, and gender was addressed. In the first investigation, statistically significant differences were established in the reading performance of English Language Learners by their economic status. English Language Learners who were Very Poor had statistically significantly lower reading test scores than English Language Learners who were Not Poor and English Language Learners who were Moderately Poor. Similarly, English Language Learners who were Moderately Poor had statistically significantly lower reading test scores than English Language Learners who were Not Poor. In the second investigation, the extent to which the ethnicity/race of English Language Learners was related to their reading performance was determined. In all three school years, Asian English Language Learners had statistically significantly higher reading test scores than their White, Hispanic, and Black English Language Learner peers. The reading performance of White, Hispanic, and Black English Language Learners was similar across the three school years. Congruent with the existing literature regarding gender differences, English Language Learner girls had statistically significantly higher reading test scores than did English Language Learner boys in all three school years.

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APPENDIX



Institutional Review Board
Office of Research and Sponsored Programs
 903 Bowers Blvd, Huntsville, TX 77341-2448
 Phone: 936.294.4875
 Fax: 936.294.3622
irb@shsu.edu
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DATE: August 31, 2017

TO: Gideon Schleeter [Faculty Sponsor: Dr. John Slate]

FROM: Sam Houston State University (SHSU) IRB

PROJECT TITLE: *Differences in the reading achievement of Texas Grade 3 English Language Learners as a function of economic status, ethnicity/race, and gender; A multiyear statewide study [TID]*

PROTOCOL #: 2017-08-35769

SUBMISSION TYPE: INITIAL REVIEW

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: August 31, 2017

REVIEW CATEGORY: Category 4—research involving existing, publicly available data usually has little, if any, associated risk, particularly if subject identifiers are removed from the data or specimens.

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

*** What should investigators do when considering changes to an exempt study that could make it nonexempt?**

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research. In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Donna Desforges
 IRB Chair, PHSC

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Sam Houston State University IRB's records

VITA**Gideon D. Schleeter****EDUCATIONAL HISTORY**

Doctorate of Education - Educational Leadership (December, 2017)

Sam Houston State University, Huntsville, Texas

Dissertation: Differences in the Reading Achievement of Texas Grade 3 English Language Learners as a Function of Their Economic Status, Ethnicity/Race, and Gender: A Multiyear Statewide Study

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Teacher, Stovall Middle School, Aldine ISD, 2008-2011

Teacher, Northside Elementary School, Monroe, Wisconsin, 2007 - 2008

PUBLICATIONS

Schleeter, G. D., & Slate, J. R. (2017). *Differences in academic achievement as a function of degree of economic disadvantage*. Unpublished manuscript. Sam Houston State University.