DIFFERENCES IN ALGEBRA I, ENGLISH I AND ENGLISH II, AND U.S. HISTORY END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER: A MULTIYEAR STATEWIDE INVESTIGATION

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by

Yeri J. Villalobos

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DIFFERENCES IN ALGEBRA I, ENGLISH I AND ENGLISH II, AND U.S. HISTORY END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER: A MULTIYEAR STATEWIDE INVESTIGATION

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DEDICATION

I thank God for He has always been the way, the truth, and the life throughout my life and this educational journey. Throughout this process, I always strengthened myself through daily prayer and by thinking about the endless possibilities the future holds. This dissertation is dedicated to my wife, my mom, my dad, my brothers, my sisters, my in-laws, my abuelita Elena, and my grandparents in Heaven. My parents and brothers have always motivated me to become the best version of myself. Their belief in me has never wavered and I am the man I am today because of them. I hope that I have made them proud.

My sweet and beautiful Gaby has also always motivated me to reach all my goals. I would not be here today without her constant support, love, understanding, patience, and caring spirit. I truly believe that God creates a lifelong partner who loves you unconditionally simply for being yourself and I am lucky to have found mine at such a young age. I look forward to growing old together.

I want to also dedicate this dissertation to my friends Ramos, Cinthia, Jose, Sam, Brian, and Alberto for always believing in me and supporting me in everything I have done. Speaking of support, I must also include our sweet pups, Aubrey and Fluffy. Although our pets only spend a few years with us, I will always remember these two for their loyal companionship through this journey. They oftentimes kept me company while I wrote and gave me sparks of energy through their constant kisses and stares.
ABSTRACT


**Purpose**

The purpose of this journal-ready dissertation was to determine the extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated End-of-Course exam in Algebra I, English I and II, and U.S. History. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard during the 2016-2017, 2017-2018, and 2018-2019 school years.

**Method**

A causal-comparative research design was present for all three studies. Archival data were collected through a Public Information Request form submitted to and fulfilled by the Texas Education Agency Public Education Information Management System for the 2016-2017, 2017-2018, and 2018-2019 school years.

**Findings**

Concerning the STAAR Algebra I End-of-Course exam, English Learner girls had a statistically significantly better performance than English Learner boys in all three school years. With respect to the STAAR English I End-of-Course exam, English Learner girls had statistically significantly better STAAR English I End-of-Course exam performance than English Learner boys in all three school years with the exception of the Masters Grade Level standard during the 2016-2017 school year because a similar
percentage of English Learner boys and girls met this standard. In regard to the STAAR English II End-of-Course exam, English Learner girls had a statistically significantly better performance on the Approaches Grade Level standard and Meets Grade Level standard. English Learner girls had a statistically significantly better performance in the Masters Grade Level standard in all school years except for the 2016-2017 school year where English Learner boys and girls had a similar percentage of students meet the standard. In regard to the STAAR U.S. History End-of-Course exam, English Learner boys had a statistically significantly better performance than English Learner girls in all three school years, with the exception of the Approaches Grade Level standard. In all three investigations, English Learner boys and English Learner girls had a large percentage of students who did not meet any Grade Level standard in all three years analyzed.

KEYWORDS: STAAR End-of-Course exams; State of Texas Assessment of Academic Readiness; Texas Education Agency; English learners; Algebra I; English I and II; U.S. History; Approaches Grade Level Standard; Meets Grade Level Standard; Masters Grade Level Standard
 ACKNOWLEDGEMENTS

All Glory be to God. He has always been the one to lift me when I am down, given me the strength necessary to keep moving forward when things have been rough, and who has given me the confidence to be who I am today. I am thankful for all the blessings. I am living God’s purpose and pray that I continue living a life of service.

I am thankful to every student, teacher, parent, and person who I’ve come across during my years as a Confirmation teacher, a tutor, a substitute, a teacher, and now as an administrator. They have all been instrumental in my journey and are the reason why this dissertation exists.

To my Cohort 42 members, this has been an amazing experience. I will always take with me the perspectives, laughs, and memories we shared. Although COVID-19 affected us in many ways, we still persevered.

I am thankful and blessed to have had the best dissertation chair any student could ask for, Dr. John R. Slate. I would have not been able to accomplish this without his guidance, mentorship, and support. From the very beginning, he placed his belief in me and motivated me to finish with his very quick feedback. I am honored to be part of the group of students he has helped achieve this dream for. I also want to thank my dissertation committee members, Dr. Hemmen, Dr. Lunenburg, and Dr. Martinez-Garcia for their constant support.

To those who I’ve worked with and who I now consider friends, Garrett, Dr. Graves, Skiles, Mendietta, and Dr. Eckford, I thank you for being so understanding and for believing in me as a friend, educator, and scholar. I am grateful for the mentorship
and guidance Dr. Eckford has provided me since the day I met him. No matter where I am, I will always be indebted to those individuals.

I want to thank everyone else who I did not specifically mention by name, but has helped me achieve this dream. I want to leave you with this, Maya Angelou once said: “My mission in life is not merely to survive, but to thrive; and to do so with some passion, some compassion, some humor, and some style.” I too want to thrive, love and serve with passion, compassion, humor, and style. To all of the English Learners out there, I pray we continue breaking barriers, breaking negative generational patterns, and that we fill the world with knowledge, hope, and service.
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CHAPTER I
INTRODUCTION

Academic achievement has been a clear focus in the past couple of decades and remains so since the authorization of federal legislation such as The Elementary and Secondary Education Act of 1965, The No Child Left Behind Act of 2001, and most recently the Every Student Succeeds Act of 2015. Student performance, school progress, and closing the gaps of students, including English Learners and other student groups are all a priority due to fears of subsequent academic problems and lower accountability ratings (Texas Education Agency, n.d.). Consequently, educational leaders have placed a clear emphasis on reducing academic disparities between student groups and their peers (Fraga & Slate, 2020). According to the Texas Education Agency (2019), Title III, Part A of the Elementary and Secondary Education Act, which is a reauthorization of the Every Student Success Act, provides that English Learners develop English proficiency and high levels of academic achievement. Title III also ensures that English Learners meet the same academic expectations that all students are expected to meet. Due to the growing disparities in academic performance between English Learners and their peers, however, teachers, educational leaders, and education agencies across the United States are reconsidering educational practices because English Learners are not able to meet the same academic expectations as set forth by Title III (Shehadeh, 2011).

According to the Texas Education Agency (2019), both student performance and school progress account for 70% of a campus’ overall rating. The remaining 30% of a school’s overall rating is accounted by closing the gaps. This rating composition becomes
particularly important when student groups are not demonstrating relative growth and performance and are, in fact, negatively affecting a school’s accountability rating.

In addition to documented academic disparities between English Learners and their peers, extensive literature is present regarding gender differences in core area subjects between boys and girls (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). These same researchers have determined that girls are less likely than boys to take more rigorous mathematics courses than boys and that women remain underrepresented in many mathematic fields. In regard to Reading and English Language Arts, Wright (2015) identified through his Texas statewide investigation that high school reading scores were statistically significantly lower for boys than for girls in all eight school years of data that he analyzed. Other researchers (e.g., Deitrich, 2019; Heafner & Fitchett, 2017; Moore et al., 2012) have also established that boys outperform girls in history and social studies related assessments, which also include Advanced Placement exams.

In this journal-ready dissertation, Algebra I, English I and II, and U.S. History performance was measured on the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course exams. Present was a focus on whether English Learner boys differ from English Learner girls in their academic performance on these exams. This emphasis is important because, in the State of Texas, the student population of English Learners is steadily increasing at all Grade Levels.

**Literature Review Search Procedures**

For this journal-ready dissertation, the literature concerning Algebra I, English I and II, and U.S. History End-of-Course exam Grade Level Performance of English
Learners by gender was examined. The EBSCO Host electronic database was used to review academic peer-reviewed articles that were published between 2000-2020. The Google Scholar electronic database was also used to review academic peer-reviewed articles that were published between 1990-2020. The literature search was limited to articles in English. The following keywords were used in the search for relevant literature: *Algebra I EOC STAAR performance, English I and II EOC STAAR performance, U.S. History EOC STAAR performance, English Learners, and STAAR EOC Exams*.

**Literature Review on Algebra I End-of-Course Exam Grade Level Performance**

According to the National Center for Education Statistics (2020), the percentage of English Learners enrolled in public schools across the United States in the fall of 2017 was 10.1%, or about 5 million English Learners. That percentage was in comparison to the fall of 2000 where 8.1% of public-school enrollment, or 3.6 million students were English Learners across the United States (National Center for Education Statistics, 2020). With respect to the state of interest for this article, Texas, the Texas Education Agency reported data from the 2017-2018 school year that 19%, or 1,015,182 PreK-12 students, were English Learners in Texas (Sugarman & Geary, 2018). These percentages of English Learners, as well as their consistent increases, pose a challenge in meeting the accountability expectations set forth by the No Child Left Behind Act of 2001 and the Every Student Succeeds Act of 2015. Taube and Jasper (2009) and Sawchuck (2018) established that students with limited English Proficiency (i.e., English Learners) in Texas have not performed as well as their peers who are proficient in the English language on the state mathematics assessments, including the Algebra I End-of-Course
exam. This course and course exam are important in that they constitute a gateway high school graduation requirement. These gaps in mathematics performance are present even before students reach their Algebra I course in high school.

According to the National Academies of Science, Engineering, and Medicine (2018) data, English Learners are less likely to pass any mathematics course than are their non-English Learner peers (pp. 44-45). Student progression through mathematics courses in high school is viewed as an indicator for postsecondary readiness (Taube & Jasper, 2009). Students who cannot pass a lower-level course such as Algebra I often times cannot have access to more advanced mathematics coursework which leads to a disadvantage in postsecondary readiness. Many students have to repeat Algebra because they are not exposed to many algebraic thinking and problem solving skills while in elementary and middle school (Sawchuk, 2018). These skills are critical to success later on in Algebra I. Of note is that English proficiency is a statistically significant predictor of English Learner mathematics test scores (Henry et al., 2014). Henry et al. (2014) also determined that mathematics performance increases with English Learner proficiency in the English language, but inversely with their Grade Level. English Learners have the ability to learn and to be successful in mathematics with additional accommodations and language support (Echevarria et al., 2004; Schleppegrell, 2007; Soltero, 2004).

In a recent investigation, Sugarman and Geary (2018) documented that 37% of English Learners did not meet any of the Grade Level Standards of the Algebra I End-of-Course exam in the 2016-2017 school year. The Texas Education Agency (2019) reported that 73% of students with limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 23% of English Learners performed
at the Meets Grade Level Standard; and 22% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 84% of students who performed at the Approaches Grade Level Standard; 62% of students who performed at the Meets Grade Level Standard; and 39% of students who performed at the Masters Grade Level Standard.

With respect to first year tested students, the Texas Education Agency (2019) reported that 79% of English Learners performed at the Approaches Grade Level Standard; 49% of English Learners performed at the Meets Grade Level Standard; and 25% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 88% of students who performed at the Approaches Grade Level Standard; 66% of students who performed at the Meets Grade Level Standard; and 42% of students who performed at the Masters Grade Level Standard (Sugarman & Geary, 2018). Apparent in both sets of statistics are large gaps in the mathematics performance of English Learners in Texas.

Academic achievement in most public schools throughout the United States can be predicted by income, race/ethnicity, language background, and other demographic variables (Uline & Johnson, 2005). Student demographic variables are important to note because state assessment scores, college entrance exams, dropout rates, and other important academic indicators have used the aforementioned demographic factors to identify which student groups are most likely to be successful. Uline and Johnson (2005) mentioned that although the mantra for over 40 years has been that “all children can learn”, multiple researchers (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al.,
2008; Leaper et al., 2012; Reilly et al., 2019) have established that not all children are successful in school.

After an extensive and intensive review of the extant literature, no published research articles could be located in which Algebra I exam data had been analyzed with respect to the performance of English Learner boys and girls. A plethora of research studies are available on gender stereotypes and differences in mathematics related to their experiences, beliefs, and motivation (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). Kurtz-Costes et al. (2008) determined that as youth enter later adolescence and adulthood, girls are less likely than boys to take more rigorous mathematics courses. Though gender gaps have narrowed in recent decades, women remain underrepresented in many mathematic fields (Leaper et al., 2012). Girls tend to do as well as boys in mathematics during their adolescence. In contrast to these studies, Reilly et al. (2019) reported that boys and girls had similar mathematics performance. According to Reilly et al. (2019), gender differences in mathematics have been reported throughout the years, but no major evidence has been documented of the presence of large gaps. In fact, most of the gaps are considered trivial because they are so small.

Duckworth and Seligman (2006) established that throughout grade school, girls earn higher grades than boys in all core area subjects, but that girls do not outperform boys on standardized assessments, SAT, ACT, and AP exams. Duckworth and Seligman (2006) documented in their study that girls earned higher final grades in Algebra I than did boys. The same researchers determined that boys tend to outperform girls on
multiple-choice questions, which is the most prevalent format of state standardized assessments, whereas girls tend to outperform boys on free-response exams.

With respect to gender and Algebra I End-of-Course exams, the Texas Education Agency (2019) reported that 80% of boys performed at the Approaches Grade Level Standard on the Algebra I End-of-Course exam; 56% of boys performed at the Meets Grade Level Standard; and 35% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 88% of girls who performed at the Approaches Grade Level Standard; 67% of girls who performed at the Meets Grade Level Standard; and 44% of girls who performed at the Masters Grade Level Standard. On all three mathematics measures, higher percentages of girls met the standards than did boys.

With respect to the previous Texas state-mandated assessment in mathematics, Alford-Stephens (2016) examined the degree to which differences were present in mathematics achievement in the Texas Assessment of Knowledge and Skills Mathematics Exit-Level (TAKS) Exam for the 2004-2005 through the 2011-2012 school years as a function of ethnicity/race (i.e., Asian, White, Hispanic, and Black). This investigation is relevant to this article because the TAKS Mathematics Exit-Level Exam is aligned to the Algebra I End-of-Course exam, as they are both state exit graduation requirements for mathematics. Alford-Stephens (2016) ascertained that gaps were present in mathematics skills by ethnicity/race. A stair step effect was established in that Asian boys had the best mathematics performance, followed by White boys, Hispanic boys, and then Black boys. The gaps that Alford-Stephens (2016) documented remained consistent across the eight years of data that she analyzed.
Literature Review on English I and English II End-of-Course Exam Grade Level Performance

Over 5 million English Learners were students enrolled in Grades K-12 in the 2017-2018 school year (National Center for Education Statistics, 2020). Of that figure, four states: California, Nevada, New Mexico, and Texas, had an English Learner population that was above 12%. Texas had one of the largest populations of English Learners with over 14% of its K-12 students being English Learners. According to the 2018-2019 Texas Education Agency (n.d.a), 20% of the public-school enrollment in the 2018-2019 school year were identified as English Learners. In comparison to national data, Texas serves approximately 1 in 5 of the country’s English Learners. Out of the 19 Regional Education Service Centers in Texas, 13 of the Regional Education Service Centers noted 10-15% percent of their students who were English Learners (Texas Education Agency, n.d.a).

In the State of Texas, school accountability ratings are calculated using three domains: student achievement, school progress, and closing the gaps (Texas Education Agency, 2019). Student achievement and school progress make up 70% of a campus’ accountability rating whereas closing the gaps makes up the remaining 30% (Texas Education Agency, 2019). Under the School Progress domain, campuses earn credit for results that maintain academic performance or demonstrate growth under the State of Texas Assessments of Academic Readiness progress measure (Texas Education Agency, 2019). Therefore, student performance on state assessments, including the End-of-Course exams, has a strong influence on student achievement and school progress, thus determining the rating that each campus receives. Of importance is to note that English
Learners constitute a specific subpopulation in calculating the accountability rating of a campus. As such, educational leaders place additional intervention strategies on the academic achievement of this group of students.

In a recent Texas investigation, Sugarman and Geary (2018) documented that 81% of English Learners did not meet any of the Grade Level Standards of the English I End-of-Course exam in the 2016-2017 school year. This result was in comparison to the 71% of English Learners who did not meet any of the Grade Level Standards of the English I End-of-Course exam in the 2018-2019 school year. With respect to the English II End-of-Course exam, the Texas Education Agency (2019) reported that 29% of students with limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 14% of English Learners performed at the Meets Grade Level Standard; and 1% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 63% of students who performed at the Approaches Grade Level Standard; 49% of students who performed at the Meets Grade Level Standard; and 12% of students who performed at the Masters Grade Level Standard. These achievement gaps are cause for concern as English Learners performed 34% lower than their peers at the Approaches Grade Level Standard; 35% lower at the Meets Grade Level Standard; and 11% lower at the Masters Grade Level Standard.

With respect to first year tested students on the English I End-of-Course exam, the Texas Education Agency (2019) reported that 37% of English Learners performed at the Approaches Grade Level Standard; 20% of English Learners performed at the Meets Grade Level Standard; and only 1% of English Learners performed at the Masters Grade Level Standard. These results were in stark contrast to the 70% of students who
performed at the Approaches Grade Level Standard; 60% of students who performed at the Meets Grade Level Standard; and 15% of students who performed at the Masters Grade Level Standard. These statistics indicate that English Learners performed 33% lower at the Approaches Grade Level Standard; 40% lower at the Meets Grade Level Standards; and 14% lower at the Masters Grade Level Standard.

In that same investigation, Sugarman and Geary (2018) documented that 33% of English Learners did not meet any of the Grade Level Standards of the English II End-of-Course exam in the 2016-2017 school year. With respect to the English II End-of-Course exam, the Texas Education Agency (2019) reported that 26% of English Learners performed at the Approaches Grade Level Standard; 11% of English Learners performed at the Meets Grade Level Standard; and not a single English Learner performed at the Masters Grade Level Standard. These results were again in stark contrast to the 67% of students who performed at the Approaches Grade Level Standard; 51% of students who performed at the Meets Grade Level Standard; and 8% of students who performed at the Masters Grade Level Standard. Achievement gaps for this End-of-Course exam were that English Learners performed 41% lower at the Approaches Grade Level Standard; 40% lower at the Meets Grade Level Standards; and 8% lower at the Masters Grade Level Standard.

Regarding first year tested students on the English II End-of-Course exam, the Texas Education Agency (2019) reported that 34% of English Learners performed at the Approaches Grade Level Standard; 16% of English Learners performed at the Meets Grade Level Standard; and not a single English Learner performed at the Masters Grade Level Standard. These results were again in stark contrast to the 76% of students who
performed at the Approaches Grade Level Standard; 60% of students who performed at the Meets Grade Level Standard; and 10% of students who performed at the Masters Grade Level Standard. These statistics were reflective that English Learners performed 42% lower at the Approaches Grade Level Standard; 44% lower at the Meets Grade Level Standards; and 10% lower at the Masters Grade Level Standard.

After an intensive review of the literature related to English I and English II End-of-Course exam performance, no published articles could be located in which English I and English II exam data had been analyzed with respect to the performance of English Learner boys and girls. Extensive literature is available on the STAAR Reading performance of Grades 3 and 5 English Learners in Texas, particularly with reference to bilingual programs (e.g., Gates & Lichtenberg, 2005; Mendez et al., 2017; Snyder et al., 2017; Villalobos & Slate, 2021). Moreover, the research literature is replete with articles on gender differences on standardized assessments (e.g., Duckworth & Seligman, 2006; Heafner & Fitchett, 2017; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019; Rojas-LeBouef, 2010).

Though no empirical studies could be located to determine whether English Learner boys differed from English Learner girls in their English I End-of-Course exams, the Texas Education Agency (2019) reported that 57% of boys performed at the Approaches Grade Level Standard; 42% of boys performed at the Meets Grade Level Standard; and 8% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 71% of girls who performed at the Approaches Grade Level Standard; 58% of girls who performed at the Meets Grade Level Standard; and 16% of
girls who performed at the Masters Grade Level Standard. Higher percentages of girls met all three standards than did boys.

With respect to the English II End-of-Course exam performance by gender, the Texas Education Agency (2019) reported that 61% of boys performed at the Approaches Grade Level Standard; 45% of boys performed at the Meets Grade Level Standard; and 6% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 74% of girls who performed at the Approaches Grade Level Standard; 58% of girls who performed at the Meets Grade Level Standard; and 11% of girls who performed at the Masters Grade Level Standard. Similar to the English I End-of-Course exam results, higher percentages of girls met all three standards than did boys.

Of relevance to this article is a longitudinal investigation conducted by Wright (2015) in which he examined the reading skills of Texas high school boys and girls on the Texas Assessment of Knowledge and Skills Exit Level English Language Arts exam. This measure was the state-mandated reading assessment prior to the STAAR exam. In his eight-year investigation (i.e., 2004-2005 through 2011-2012), Wright (2015) established that girls had statistically higher reading test scores than boys in all eight school years and across all of the reading objectives. These results are congruent with the existing research literature that English Learner girls outperform English Learner boys on the English I and II End-of-Course exams.

**Literature Review on U.S. History End-of-Course Exam Grade Level Performance**

According to the National Center for Education Statistics (2020), about 5 million English Learners were enrolled in public schools in 2017 across the United States. This figure comprises 10.1% of the student population. This number was in comparison to the
3.6 million English Learners who were enrolled in public schools in the United States in 2000. At that time, English Learners were 8.1% of the student population (National Center for Education Statistics, 2020). With respect to the state of interest for this article, Texas, the Texas Education Agency reported that 1,015,182 PreK-12 students, or 19% of its students, were English Learners (Sugarman & Geary, 2018).

Federal education legislation such as The Elementary and Secondary Education Act of 1965, The No Child Left Behind Act of 2001, and most recently, the Every Student Succeeds Act of 2015 have placed a clear focus on student academic achievement and accountability for all students. Consequently, educational leaders have placed a clear emphasis on reducing academic disparities between student groups enrolled in public schools (Fraga & Slate, 2020). One of the major student groups that have evident disparities are English Learners. The growing academic disparities between English Learners and their peers have forced educational leaders and educators to seek educational practices that will best meet the needs of these students. Lazarín (2008) concluded that one of the main challenges for English Learners who arrive in the United States is high school completion and graduation due to the state accountability requirements, which in Texas includes the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course exams in the areas of Algebra I, Biology, English I, English II, and U.S. History.

Aside from mastering the English language, high school English Learners are required to meet graduation requirements set forth by federal and state legislation aimed at attaining academic achievement and progress for all student groups. Cook et al. (2011) noted that English Learners are required to learn the language, negotiate multiple
academic environments, make sense of complex content, and are required to demonstrate academic growth all at one time, which contributes to the academic disparities that exist between English Learners and their peers. English Learners perform below Grade Level in every subject that is federally tested for accountability purposes (Soland, 2019). According to the Nation’s Report Card (2019), only 1% of English Learners performed at or above the proficient level in 2018 on the National Assessment of Educational Progress U.S. History assessment and only 21% of English Learners performed at or above the basic level that same year. These statistics are in stark contrast to the 16% of non-English Learners who performed at or above the proficient level and to 69% of non-English Learners who performed at or above the basic level in 2018.

With respect to Texas, Craft (2011) examined the academic performance of Grade 8 White, Hispanic, and English Learners in reading, mathematics, science, and social studies for the 2002-2003 through 2003-2010 school years. Craft (2011) established the presence of statistically significant achievement gaps between the aforementioned groups of students in all four academic areas. Of interest to this article was that English Learners had the poorest performance of the three groups of students in all four academic areas (Craft, 2011). Craft (2011) documented that the average passing rate in Social studies for English Learners was 59.44% throughout the seven school years of data that were analyzed. Though academic gaps between English Learners and their peers have diminished over the years in Social studies and other core subject areas, educational leaders across Texas and the United States are still concerned about the academic disparities that still exist between English Learners and their counterparts (Fraga & Slate, 2020; Gandara, 2010; Hemphill & Vanneman, 2011; Sugarman & Geary, 2018).
In a recent investigation conducted in Texas, Sugarman and Geary (2018) documented that 31% of English Learners did not meet any of the Grade Level Standards of the U.S. History End-of-Course exam in the 2016-2017 school year. According to the Texas Education Agency (2017), students who perform at the Approaches Grade Level Standard are likely to succeed with targeted interventions; students who perform at the Meets Grade Level Standard have a high probability of success in the next grade or course with some targeted interventions; and students at the Masters Grade Level Standard are expected to succeed in the next grade or course with no interventions. The Texas Education Agency (2019) reported that 74% of students with Limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 36% of English Learners performed at the Meets Grade Level Standard; and 12% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 93% of students who performed at the Approaches Grade Level Standard; 75% of students who performed at the Meets Grade Level Standard; and 47% of students who performed at the Masters Grade Level Standard. Of concern here is that English Learners performed 19% lower than their peers at the Approaches Grade Level Standard; 39% lower at the Meets Grade Level Standard; and 35% lower at the Masters Grade Level Standard on the U.S. History End-of-Course exam in the 2016-2017 school year.

Concerning first year tested students, The Texas Education Agency (2019) reported that 78% of English Learners performed at the Approaches Grade Level Standard; 39% of English Learners performed at the Meets Grade Level Standard; and 13% of English Learners performed at the Masters Grade Level Standard. These results
were in comparison to the 94% of students who performed at the Approaches Grade Level Standard; 77% of students who performed at the Meets Grade Level Standard; and 48% of students who performed at the Masters Grade Level Standard. These statistics were reflective that first year tested English Learners performed 16% lower than their peers at the Approaches Grade Level Standard; 38% lower at the Meets Grade Level Standard; and 45% lower at the Masters Grade Level Standard.

Evidence exists of the presence of gender differences in these subject areas. Heafner and Fitchett (2017) and Moore et al. (2012) have documented that boys outperform girls on Advanced Placement U.S. History exams. In their study, Heafner and Fitchett (2017) examined gender differences in relation to the curriculum that was assessed on the 2010 National Assessment of Educational Progress U.S. History exam administered to Grade 12 students. Girls were more likely to answer questions related to their interests, which has substantial implications on academic performance in Social studies because social studies curriculum is heavily focused on political and military history, which favors boys. Heafner and Fitchett (2018) determined that girls’ reception of social studies content is affected by the continuous disregard for women in the curriculum, which affects the interest that girls have in social studies.

Moore et al. (2012) examined College Board Advanced Placement exam data for the May 2007 and May 2011 administrations to determine whether gender differences were present. Moore et al. (2012) analyzed data from the top 10 Advanced Placement exams most frequently taken by boys and girls. With respect to U.S. History, the focus of this article, Moore et al. (2012) established that boys had statistically significantly higher test scores than did girls. In contrast to these two studies, however, Dania (2014)
concluded that the quality of instruction that students receive is the true indicator for success in social studies and that the academic achievement in social studies is the same for boys and girls.

After an extensive and intensive review of the literature related to U.S. History End-of-Course exam performance, no published articles could be located in which U.S. History exam data had been analyzed with respect to the performance of English Learner boys and girls. The research literature is replete with articles on gender differences related to academic performance in mathematics and reading and motivation behind student performance (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). In a directly related area, social studies, only a few researchers have investigated gender differences in this area. In a recent investigation, conducted in Texas, Dietrich (2019) analyzed Texas statewide data for the 2004-2005 to the 2011-2012 school years on the state-mandated assessment administered to Grade 11 Texas high school students. She established the presence of statistically significant differences in social studies skills between boys and girls. In her investigation, girls had lower average test scores than boys in all five social studies skills (i.e., history, geography, economics and social influences, political influences, and overall social studies skills). These gender differences were consistent and remained unchanged across the 2004-2005 to 2011-2012 school years.

In relation to gender differences on the U.S. History End-of-Course exam, the Texas Education Agency (2019) reported that 92% of boys performed at the Approaches Grade Level Standard; 77% of boys performed at the Meets Grade Level Standard; and 51% of boys performed at the Masters Grade Level Standard on the U.S. History End-of-
Course exam. These results were in comparison to the 94% of girls who performed at the Approaches Grade Level Standard; 74% of girls who performed at the Meets Grade Level Standard; and 43% of girls who performed at the Masters Grade Level Standard. Readers should note that boys performed 2% lower than girls at the Approaches Grade Level Standard; girls performed 3% lower than boys at the Meets Grade Level Standard; and girls performed 8% lower at the Masters Grade Level Standard than boys.

**Role of the Educational Leader in End-of-Course Exam Performance**

The role of an educational leader has evolved over the past few decades to have more of a focus on instructional leadership. As such, strong emphasis has been placed on the role that principals and superintendents play in the quality of education students receive, school development, and overall student learning (Gurley et al., 2016; Hallinger & Heck, 2010). The consistent increases in the percentages of English Learners enrolled in public schools in Texas is forcing educational leaders to generate ways to close documented achievement gaps that are affecting the academic success of English Learners (Sugarman & Geary, 2018). Instructional leadership continues to be an important focus as student achievement and growth are essential components of the accountability ratings assigned to school campuses and school districts (Gurley et al., 2016).

Educational leaders often times bridge the gap between an array of issues such as educational inequities, poverty, societal issues, technology, parental involvement, and the disparity of resources. The role of educational leaders in End-of-Course exam performance is to serve as liaisons and advocates for English Learners in their pursuit of language attainment, academic success, and postsecondary pursuits. The goal of this
journal-ready dissertation related to the extent to which gender differences might be present in End-of-Course exam performance of English Learners is to address a void in the research literature. Should gender differences be present for English Learners on their End-of-Course exam performance, then interventions can be generated to remediate these differences. Robinson (2015) reminded educational leaders that factors such as intrinsic motivation, social economic status, social disadvantages, home and family circumstances, geographical differences, pressures of high stakes testing, and many other unidentified factors consistently affect student success. Educational leaders should consider these factors as they attempt to improve academic achievement and accountability.

**Statement of the Problem**

A dramatic increase has occurred in the numbers of English Learners in the United States in the last few decades due to the growing immigration of students predominantly from Mexico, Central, and South American countries (López et al., 2015). This increase in the numbers of English Learners coupled with federal legislation mandates included in The Elementary and Secondary Education Act of 1965, The No Child Left Behind Act of 2001, and the Every Student Succeeds Act of 2015 have placed an emphasis on student performance, school progress, and closing the achievement gaps of students, including English Learners and other student groups, due to fears of subsequent academic problems and lower accountability ratings. The Texas Education Agency (2019) identified that student performance and school progress account for 70% of a school’s rating and that closing the gaps accounts for 30% of the school’s rating.

High school students in Texas are required to take, and pass, a total of five high stakes standardized tests to meet their graduation requirements: Algebra I, Biology,
English I, English II, and U.S. History. According to the Texas Education Agency (2019), three of these tests are administered to first year high school students. Therefore, English Learners are not only transitioning to high school, but in most cases, they are adapting to life and schooling in the United States. The Texas Education Agency in 2012 unveiled its current high stakes standardized test to replace the Texas Assessment of Knowledge and Skills. The State of Texas Assessment of Academic Readiness (STAAR) consists of a series of tests that public school students in Texas begin taking in the third grade and continue throughout high school. In both elementary and middle school, students are assessed in the subjects of reading, mathematics, science, social studies, and writing. While in high school, tests become more content specific and students are required to pass the five aforementioned end-of-course exams to meet their graduation requirements. Focused upon in this journal-ready dissertation, Algebra I, English I and II, and U.S. History performance was measured on the STAAR End-of-Course exams. Present was a focus on whether English Learner boys differ from English Learner girls in their academic performance in the State of Texas, a state that has a consistent growing population of English Learners at all Grade Levels.

**Purpose of the Study**

The purpose of this journal-ready dissertation was to determine the extent to which English Learner boys and girls differed in their performance on the Texas state-mandated End-of-Course exams in Algebra I, English I and II, and U.S. History. Specifically examined was the degree to which English Learner boys and girls differed in their percentages based on three Grade Level Performance standards: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Three End-of-Course exams were
analyzed: Algebra I, English I and II, and U.S. History for the 2016-2017, 2017-2018, and 2018-2019 school years. Performance on the Algebra End-of-Course exam was investigated in the first study, English I and II were addressed in the second study, and U.S. History was investigated in the third study.

Significance of the Study

Findings from this journal-ready dissertation add to the existing research literature available on the differences in End-of-Course exam Grade Level performance of English Learners. English Learner boys and girls have different academic success levels. As of the time of this journal-ready dissertation being conducted, few researchers had examined the degree to which differences might be present between English Learner boys and girls on the Texas state-mandated End-of-Course exams. Additionally, no published literature was located in which Texas statewide end-of-course exam data had been analyzed with respect to English Learners, their achievement gap in high school end-of-course exams, or the overall achievement gap of students in Texas in the STAAR examinations. Much of the literature about the achievement gap of English Learners in the State of Texas was focused on elementary students in mathematics and reading rather than on high school English Learners and their academic achievement on the state mandated exams.

Definition of Terms

In this journal-ready dissertation, key terms for the three research investigations are provided for the reader below.

Algebra I End-of-Course Exam

The Algebra I End-of-Course exam measures students’ academic performance in five Reporting Categories. Reporting Category 1 measures number and algebraic

**Approaches Grade Level Category**

In the Approaches Grade Level Category, students are likely to succeed in the next grade or course with targeted academic intervention practices to improve academic progress and performance (Texas Education Agency, 2017). Students in the Approaches Grade Level Category generally demonstrate the ability to apply assessed knowledge and skills in familiar contexts (Texas Education Agency, 2017).

**English I and II End-of-Course Exam**


**English Learner**

The terms English Learner and English Language Learner are both synonymous with a Limited English Proficient student and are used interchangeably by the Texas Education Agency. In this journal-ready dissertation, the term, English Learners, will be
used. English Learners are students who are “in the process of acquiring English and have another language as the first native language” (Chapter 89.1203 of Texas Education Code).

**Ethnicity/Race**

Ethnicity refers to common cultural practices, perspectives, and distinctions that distinguish one group from another (United States Census Bureau, 2017). Race is defined by the United States Census Bureau as “a person’s self-identification with one or more social groups” (United States Census Bureau, 2017, p. 1).

**Hispanic**

Hispanic is defined as a person who has descendants of Central or South American, Cuban, Mexican, Puerto Rican, or other Spanish culture or origin (Texas Education Agency, 2018a).

**Masters Grade Level Category**

In the Masters Grade Level Category, students are expected to succeed in the next grade or course with little to no academic intervention (Texas Education Agency, 2017). Students in the Masters Grade Level Category demonstrate the ability to think critically and apply the assessed knowledge and skills in varied contexts, both familiar and unfamiliar (Texas Education Agency, 2017).

**Meets Grade Level Category**

In the Meets Grade Level Category, students have a high probability of academic success in the next grade or course, but may still need some type of targeted intervention (Texas Education Agency, 2017). Students in the Meets Grade Level Category generally
demonstrate the ability to think critically and apply assessed knowledge and skills in familiar contexts (Texas Education Agency, 2017).

**National Assessment of Educational Progress**

The National Assessment of Educational Progress is a common measure of student achievement administered to students in Grades 4, 8, and 12 used by the Department of Education in both public and private schools across the United States (The Nation’s Report Card, 2019). The National Assessment of Educational Progress assesses students in the areas of civics, economics, geography, mathematics, music and visual arts, reading, science, technology and engineering literacy, U.S. History, and writing (The Nation’s Report Card, 2019). The National Assessment of Educational Progress reports results at three different achievement levels: Basic, Proficient, and Advanced. The National Assessment of Educational Progress provides academic performance data for various demographic groups such as ethnicity/race, gender, type of school, school location, and status as English Learners (The Nation’s Report Card, 2019).

**Public Education Information Management System**

The Public Education Information Management System is a centralized digital collection of data obtained and authorized as mandated by the Texas Education Code. Every year, the Texas Education Agency establishes data standards that cover a wide range of variables including personal, economic, and organizational information, student academic and demographic performance (Public Education Information Management System Data Standards, 2018).
**STAAR End-of-Course Exams**

Students in Texas are required to take the STAAR End-of-Course exams as part of their graduation requirements. Student academic performance in Algebra I, Biology, English I, English II, and U.S. History (Texas Education Agency, 2018b) is assessed by these exams.

**State of Texas Assessment of Academic Readiness (STAAR)**

The State of Texas Assessments of Academic Readiness (STAAR) assessment was introduced to Texas public-school districts in 2012. The STAAR assessment is a standardized assessment that monitors student’s academic achievement on the Texas Essential Knowledge and Skill curriculum standards. Students who are in high school and who are enrolled in Algebra I, English I and II, United States History, and Biology courses are required to take the STAAR exams. (Texas Education Agency, 2018c).

**Texas Education Agency**

The Commissioner of Education leads the Texas Education Agency for the state of Texas. The Commissioner operates in partnership with the State Board of Education. The Texas Education Agency also collaborates with and 20 Regional Education Service Centers to lead and assist Texas’ public primary and secondary schools and districts (Texas Education Agency, 2018b, para. 1, 6 & 8). The Texas Education Agency manages 1,200 districts and billions of dollars in public schools through its mandate to provide services, leadership, and support to help fulfill the educational needs of children who reside in the State of Texas (Texas Education Agency, 2018b, para 1 & 3).
**U.S. History End-of-Course Exam**

The U.S. History End-of-Course exam measures students’ academic performance in four Reporting Categories. Reporting Category 1 measures history. Reporting Category 2 measures geography and culture. Reporting Category 3 measures government and citizenship. Reporting Category 4 measures economics, science, technology, and society (Texas Education Agency, 2019).

**Delimitations**

The first delimitation of this journal-ready dissertation is that only three school years of STAAR End-of-Course exam data (i.e., 2016-2017, 2017-2018, 2018-2019) were analyzed, which limits the extent to which results might be generalizable. The second delimitation was that focus was only placed on only four of the five End-of-Course exams offered in Texas (i.e., Algebra, English I and II, and U.S. History). The third and final delimitation was that data was only analyzed on English Learners in Texas and not other major groups (e.g., students in poverty, students of color) identified in the Public Education Information Management System.

**Limitations**

For this journal-ready dissertation, a limitation present was that only quantitative data was utilized to measure English Learners’ academic performance. Another limitation present was that school campus and district personnel coded English Learners and their academic performance in each End-of-Course exam in the Public Education Information Management System. As such, errors may exist. Moreover, as of the time of this journal-ready dissertation being conducted, Algebra I, English I and II, and U.S. History End-of-Course exams were graduation requirements in Texas. Accordingly, students’ numbers of
years in schools are inconsistent and have the potential of affecting their academic performance on the End-of-Course exams. Lastly, archival data was used for this casual-comparative study; therefore, no conclusive determination of cause and effect relationships could be made.

**Assumptions**

For this journal-ready dissertation, the major assumption was that school campus and district personnel accurately reported the End-of-Course exam data, English Learner indicator, and gender to the Texas Education Agency Public Education Information Management System. Any inconsistent information to this assumption may lead to inaccurate results and data.

**Procedures**

This journal-ready dissertation was submitted to the dissertation committee for review and approval. Following approval from the dissertation committee, an application was submitted to the Sam Houston State University Institutional Review Board. Once approval was received from the Institutional Review Board, the Algebra I, English I and English II, and U.S. History End-of-Course exam performance data were analyzed. Specifically examined were Texas statewide data on English Learner boys and girls for the 2016-2017, 2017-2018, and 2018-2019 school years.

**Organization of the Study**

This journal-ready dissertation consists of three research studies. In the first article, the degree to which differences might be present in the Algebra I End-of-Course exam performance between Texas English Learner boys and girls for the 2016-2017, 2017-2018, and 2018-2019 school years were addressed. In the second article, the extent
to which differences might exist in the English I and English II End-of-Course exam performance between Texas English Learner boys and girls for the same three school years were examined. In the last article, the focus was placed on the degree to which differences might be present in the U.S. History End-of-Course exam performance between Texas English Learner boys and girls for three school years.

The journal-ready dissertation entails five chapters. Chapter I includes the background of the study, the statement of the problem, the purpose of the study, the significance of the study, definitions of terms, delimitations, limitations, assumptions, and a framework of the three research studies. In Chapter II, research questions about Algebra I End-of-Course Exam performance for English Learner boys and girls across three school years were addressed. In the second article, the Texas state-mandated English I and English II End-of-Course Exam performance of English Learner boys and girls were examined for three school years. In the third article, the U.S. History End-of-Course Exam performance of English Learner boys and girls were analyzed for three school years. The results of all three studies were discussed in Chapter V.
CHAPTER II

DIFFERENCES IN ALGEBRA I END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER:

A MULTIYEAR STATEWIDE INVESTIGATION

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

The extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated Algebra 1 End-of-Course exam I for the 2016-2017, 2017-2018, and 2018-2019 school years was examined. Inferential statistical analyses of Texas statewide data revealed that English Learner girls had statistically significantly better STAAR Algebra I End-of-Course exam performance in all three Grade Level standards than English Learner boys in all three school years. Results in all three school years add to the existing research literature in that English Learner girls outperformed English Learner boys in Algebra, which is contrary to much of the extant research literature. Implications and recommendations for future research were discussed.

KEYWORDS: Algebra I End-of-Course exam; STAAR; TEA; STAAR End-of-Course exams; English Learner; Approaches Grade Level Standard; Meets Grade Level Standard; Masters Grade Level Standard
DIFFERENCES IN ALGEBRA I END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER: A MULTIYEAR STATEWIDE INVESTIGATION

According to the National Center for Education Statistics (2020), the percentage of English Learners enrolled in public schools across the United States in the fall of 2017 was 10.1%, or about 5 million English Learners. That percentage was in comparison to the fall of 2000 where 8.1% of public-school enrollment, or 3.6 million students were English Learners across the United States (National Center for Education Statistics, 2020). With respect to the state of interest for this article, Texas, the Texas Education Agency reported data from the 2017-2018 school year that 19%, or 1,015,182 PreK-12 students, were English Learners in Texas (Sugarman & Geary, 2018). These percentages of English Learners, as well as their consistent increases, pose a challenge in meeting the accountability expectations set forth by the No Child Left Behind Act of 2001 and the Every Student Succeeds Act of 2015. Taube and Jasper (2009) and Sawchuck (2018) established that students with limited English Proficiency (i.e., English Learners) in Texas have not performed as well as their peers who are proficient in the English language on the state mathematics assessments, including the Algebra I End-of-Course exam. This course and course exam are important in that they constitute a gateway high school graduation requirement. These gaps in mathematics performance are present even before students reach their Algebra I course in high school.

According to the National Academies of Science, Engineering, and Medicine (2018) data, English Learners are less likely to pass any mathematics course than are their non-English Learner peers (pp. 44-45). Student progression through mathematics
courses in high school is viewed as an indicator for postsecondary readiness (Taube & Jasper, 2009). Students who cannot pass a lower-level course such as Algebra I often times cannot have access to more advanced mathematics coursework which leads to a disadvantage in postsecondary readiness. Many students have to repeat Algebra because they are not exposed to many algebraic thinking and problem-solving skills while in elementary and middle school (Sawchuk, 2018). These skills are critical to success later on in Algebra I. Of note is that English proficiency is a statistically significant predictor of English Learner mathematics test scores (Henry et al., 2014). Henry et al. (2014) also determined that mathematics performance increases with English Learner proficiency in the English language, but inversely with their Grade Level. English Learners have the ability to learn and to be successful in mathematics with additional accommodations and language support (Echevarria et al., 2004; Schleppegrell, 2007; Soltero, 2004).

In a recent investigation, Sugarman and Geary (2018) documented that 37% of English Learners did not meet any of the Grade Level Standards of the Algebra I End-of-Course exam in the 2016-2017 school year. The Texas Education Agency (2019) reported that 73% of students with limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 23% of English Learners performed at the Meets Grade Level Standard; and 22% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 84% of students who performed at the Approaches Grade Level Standard; 62% of students who performed at the Meets Grade Level Standard; and 39% of students who performed at the Masters Grade Level Standard.
With respect to first year-tested students, the Texas Education Agency (2019) reported that 79% of English Learners performed at the Approaches Grade Level Standard; 49% of English Learners performed at the Meets Grade Level Standard; and 25% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 88% of students who performed at the Approaches Grade Level Standard; 66% of students who performed at the Meets Grade Level Standard; and 42% of students who performed at the Masters Grade Level Standard (Sugarman & Geary, 2018). Apparent in both sets of statistics are large gaps in the mathematics performance of English Learners in Texas.

Academic achievement in most public schools throughout the United States can be predicted by income, race/ethnicity, language background, and other demographic variables (Uline & Johnson, 2005). Student demographic variables are important to note because state assessment scores, college entrance exams, dropout rates, and other important academic indicators have used the aforementioned demographic factors to identify which student groups are more likely to be successful. Uline and Johnson (2005) mentioned that although the mantra for over 40 years has been that “all children can learn”, multiple researchers (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019) have established that not all children are successful in school.

After an extensive and intensive review of the extant literature, no published research articles could be located in which Algebra I exam data had been analyzed with respect to the performance of English Learner boys and girls. A plethora of research studies are available on gender stereotypes and differences in mathematics related to their
experiences, beliefs, and motivation (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). Kurtz-Costes et al. (2008) determined that as youth enter later adolescence and adulthood, girls are less likely than boys to take more rigorous mathematics courses. Though gender gaps have narrowed in recent decades, women remain underrepresented in many mathematic fields (Leaper et al., 2012). Girls tend to do as well as boys in mathematics during their adolescence. In contrast to these studies, Reilly et al. (2019) reported that boys and girls had similar mathematics performance. According to Reilly et al. (2019), gender differences in mathematics have been reported throughout the years, but no major evidence has been documented of the presence of large gaps. In fact, most of the gaps are considered trivial because they are so small.

Duckworth and Seligman (2006) established that throughout grade school, girls earn higher grades than boys in all core area subjects, but that girls do not outperform boys on standardized assessments, SAT, ACT, and AP exams. Duckworth and Seligman (2006) documented in their study that girls earned higher final grades in Algebra I than did boys. The same researchers determined that boys tend to outperform girls on multiple-choice questions, which is the most prevalent format of state standardized assessments, whereas girls tend to outperform boys on free-response exams.

With respect to gender and Algebra I End-of-Course exams, the Texas Education Agency (2019) reported that 80% of boys performed at the Approaches Grade Level Standard on the Algebra I End-of-Course exam; 56% of boys performed at the Meets Grade Level Standard; and 35% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 88% of girls who performed at the Approaches
Grade Level Standard; 67% of girls who performed at the Meets Grade Level Standard; and 44% of girls who performed at the Masters Grade Level Standard. On all three mathematics measures, higher percentages of girls met the standards than did boys.

With respect to the previous Texas state-mandated assessment in mathematics, Alford-Stephens (2016) examined the degree to which differences were present in mathematics achievement in the Texas Assessment of Knowledge and Skills Mathematics Exit-Level (TAKS) Exam for the 2004-2005 through the 2011-2012 school years as a function of ethnicity/race (i.e., Asian, White, Hispanic, and Black). This investigation is relevant to this article because the TAKS Mathematics Exit-Level Exam is aligned to the Algebra I End-of-Course exam, as they are both state exit graduation requirements for mathematics. Alford-Stephens (2016) ascertained that gaps were present in mathematics skills by ethnicity/race. A stair step effect was established in that Asian boys had the best mathematics performance, followed by White boys, Hispanic boys, and then Black boys. The gaps that Alford-Stephens (2016) documented remained consistent across the eight years of data that she analyzed.

**Statement of the Problem**

A dramatic increase has occurred in the numbers of English Learners in the United States in the last few decades due to the growing immigration of students predominantly from Mexico, Central, and South American countries (López et al., 2015). Because of this dramatic growth, an emphasis has been placed in meeting the academic needs of English Learners due to fears of subsequent academic problems unless adequate interventions are implemented. According to Brown (2005), substantial achievement gaps are present between English Learners and their peers, particularly in mathematics.
performances because they have to learn abstract mathematical concepts in a language that they have not yet fully developed. Additionally, English Learners find certain syntactic mathematical features cumbersome due to the language structure. As such, the mathematics performance of English Learners is confounded by their language skills (Brown, 2005). In this investigation, Algebra I scores were measured on the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course exam. Present was a focus on English Learners by gender in the State of Texas, a state that has a consistent growing population of immigrant students at all Grade Levels.

**Purpose of the Study**

The purpose of this study was to determine the extent to which differences were present between English Learner boys and girls in their performance on the Texas state-mandated Algebra 1 End-of-Course exam. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard. These three mathematics measures were addressed for three school years: 2016-2017, 2017-2018, and 2018-2019. Through analyzing three school years of statewide data, the degree to which a trend was present was determined.

**Significance of the Study**

Results from this multiyear analysis will add to the existing research literature available on the extent to which differences were present in the Algebra I End-of-Course exam Grade Level performance between English Learner boys and girls. English Learner boys and girls have different academic success levels. As of the time of this research study being conducted, few researchers, however, had examined the degree to which
English Learner boys and girls differed in their performance on the Texas state-mandated Algebra I End-of-Course exam.

**Research Questions**

The following research questions were addressed in this study: (a) What is the difference between English Learner boys and girls in their performance at the Approaches Grade Level standard on the Algebra I End-of-Course exam?; (b) What is the difference between English Learner boys and girls in their performance at the Meets Grade Level Standard on the Algebra I End-of-Course exam?; (c) What is the difference between English Learner boys and girls in their performance at the Masters Grade Level Standard on the Algebra I End-of-Course exam?; and (d) What trend is present in the performance of English Learner boys and girls on the three Grade Level standards across the three school years of data analyzed? The first three research questions were analyzed separately for three school years: 2016-2017, 2017-2018, and 2018-2019, whereas the last research question involved comparisons across all three school years.

**Method**

**Research Design**

A causal-comparative research design (Johnson & Christensen, 2020) was present in this multi-year analysis. In this study, the independent variable was English Learner gender. Dependent variables were student performance on the Algebra I End-of-Course exam (a) Approaches Grade Level standard, (b) Meets Grade Level standard, and (c) Masters Grade Level standard for the 2016-2017, 2017-2018, and 2018-2019 school years. In a causal-comparative research design, pre-existing data are analyzed. These data
were obtained from the Texas Education Agency Public Education Information Management System (PEIMS Data Standards, 2018).

**Participants and Instrumentation**

Participants in this study were English Learner boys and girls in Texas who took the Algebra I End-of-Course exam in the 2016-2017, 2017-2018, and 2018-2019 school years. The data analyzed herein were previously obtained from the Texas Education Agency Public Education Information Management System database for the Algebra I End-of-Course exam that was administered during the 2016-2017, 2017-2018, and 2018-2019 school years. A Public Information Request was previously submitted to and was fulfilled by the Texas Education Agency to obtain the data. Datasets requested and obtained were for: (a) Grade Level (b) Algebra I End-of-Course Performance Level Standards, (c) Limited English Proficient indicator, and (d) gender. Upon receipt, the data were then imported into the Statistical Package for Social Sciences software program (SPSS) for analysis (Field, 2009).

Performance on the STAAR Phase-in standards were examined by gender. Assessed by the Algebra I End-of-Course exam are three categories for performance. In the Approaches Grade Level Category: Performance in this category indicates that students are likely to succeed in the next grade or course (Texas Education Agency, 2018). In the Meets Grade Level Category: Performance in this category indicates that students have a high probability of academic success in the next grade or course (Texas Education Agency, 2018). Students may still need some type of short-term and targeted academic intervention. In the Masters Grade Level Category: Performance in this category indicates that students are expected to succeed in the next grade or course.
Students who perform within this category need very little to no academic intervention (Texas Education Agency, 2018). Students in this category demonstrate the ability to think critically and apply the assessed knowledge and skills in varied contexts, both familiar and unfamiliar (Texas Education Agency, 2018).

**Results**

To ascertain whether differences were present in STAAR Algebra I End-of-Course exam performance (i.e., Did Not Meet, Met) at the Approaches Grade Level, Meets Grade Level, and Masters Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school years, Pearson chi-square analyses were conducted. This statistical procedure was viewed as the optimal statistical procedure to use because frequency data were present for STAAR Algebra I End-of-Course exam performance, Grade Level standards, and for English Learner gender. As such, chi-squares are the statistical procedure of choice when variables are categorical (Slate & Rojas-LeBouef, 2011). In addition, with the sample size, the available sample size per cell was more than five. Therefore, the assumptions for using Pearson chi-square procedures were met.

**Approaches Grade Level Analyses Across All Three School Years**

For the first research question on STAAR Algebra I End-of-Course exam performance at the Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, \( \chi^2(1) = 146.42, p < .001 \). The effect size for this finding, Cramer’s V, was below small, .09 (Cohen, 1988). As revealed in Table 2.1, a statistically significantly higher percentage of English Learner girls, more than 9
percentage points, met the STAAR Algebra I End-of-Course exam Approaches Grade Level standard than did English Learner boys.

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Insert Table 2.1 about here

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With respect to the 2017-2018 school year, the Pearson chi-square revealed the presence of a statistically significant difference, $\chi^2(1) = 627.74, p < .001$, Cramer’s $V$, was small, .13 (Cohen, 1988). As delineated in Table 2.1, a statistically significantly higher percentage of English Learner girls, more than 12 percentage points higher, met the STAAR Algebra I End-of-Course exam Approaches Grade Level standard than did English Learner boys. Concerning the 2018-2019 school year, a statistically significant difference was yielded, $\chi^2(1) = 846.54, p < .001$, small effect size, Cramer’s $V = .14$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 13 percentage points higher, met the STAAR Algebra I End-of-Course exam Approaches Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 2.1.

**Meets Grade Level Analyses Across All Three School Years**

Regarding the 2016-2017 school year for the STAAR Algebra I End-of-Course Meets Grade Level standard, a statistically significant result was yielded, $\chi^2(1) = 101.81, p < .001$, below small effect size, Cramer’s $V = .08$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 6 percentage points higher, met the STAAR Algebra 1 End-of-Course Meets Grade Level standard than did English Learner boys. Table 2.2 contains the descriptive statistics for this analysis.
With respect to the 2017-2018 school year, the result was statistically significant, \( \chi^2(1) = 352.27, p < .001 \), small effect size, Cramer’s \( V = .10 \) (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 8 percentage points higher, met the STAAR Algebra 1 End-of-Course Meets Grade Level standard than did English Learner boys. Delineated in Table 2.2 are the descriptive statistics for this analysis. Concerning the 2018-2019 school year, a statistically significant difference was yielded, \( \chi^2(1) = 707.06, p < .001 \), small effect size, Cramer’s \( V = .13 \) (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 12 percentage points higher, met the STAAR Algebra 1 End-of-Course exam Meets Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 2.2.

**Masters Grade Level Analyses Across All Three School Years**

For the third research question on STAAR Algebra I End-of-Course exam Masters Grade Level standard, the result was statistically significant, \( \chi^2(1) = 63.81, p < .001 \). The effect size for this finding, Cramer’s \( V \), was below small, .06 (Cohen, 1988). As presented in Table 2.3, a statistically significantly higher percentage of English Learner girls, 3 percentage points higher, met the STAAR Algebra 1 End-of-Course exam Meets Grade Level standard than did English Learner boys during the 2016-2017 school year.
Concerning the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 121.14, p < .001$, below small effect size, Cramer’s V of .06 (Cohen, 1988). As revealed in Table 2.3, a statistically significantly higher percentage of English Learner girls, more than 3 percentage points higher, met the STAAR Algebra 1 End-of-Course exam Masters Grade Level standard than did English Learner boys. With respect to the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 420.05, p < .001$, small effect size, Cramer’s V= .10 (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 7 percentage points higher, met the STAAR Algebra 1 End-of-Course exam Masters Grade Level standard than did English Learner boys. Delineated in Table 2.3 are the descriptive statistics for this analysis.

**Algebra 1 End-of-Course Exam Performance Across All Three School Years**

Concerning the Approaches Grade Level standard, English Learner girls outperformed English Learner boys in all three school years. The percentages of English Learner girls and English Learner boys who met the Approaches Grade Level standard consistently increased each school year. The percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard are depicted in Figure 2.1.
With respect to the Meets Grade Level standard, English Learner girls consistently outperformed English Learner boys in all three school years. Similar to the Approaches Grade Level standard, English Learners showed better performance in each school year. Despite the increase in performance each year, 81% of English Learner boys and 74.9% of English Learner girls did not meet the Masters Grade Level standard in the 2016-2017 school year; 77.5% of English Learner boys and 69% of English Learner girls did not meet the Meets Grade Level standard in the 2017-2018 school year; and 67.5% of English Learner boys and 54.9% of English Learner girls did not meet the Meets Grade Level standard in the 2018-2019 school year. Portrayed in Figure 2.2 are the percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard.

In regard to the Masters Grade Level standard, English Learner girls outperformed English Learner boys in all three school years. In comparison to the other two Grade Level standards, lower percentages of English Learner boys and English Learner girls met the Masters Grade Level standard. In all three school years, more than 75% of English Learner boys and English Learner girls did not meet this standard.
Depicted in Figure 2.3 are the percentages of English Learner boys and girls who did not met this Grade Level standard.

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Insert Figure 2.3 about here

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**Discussion**

In this Texas, statewide investigation, Algebra I End-of-Course Grade Level performance was investigated by English Learner gender. Three Grade Level standards were addressed: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Statistically significant differences were revealed between English Learner boys and girls for all three Grade Level standards for all three school years. English Learner girls outperformed English Learner boys in all instances. The performance gaps between English Learner girls and English Learner boys increased each year.

An issue of concern based on the results was that 53.8% of English Learner boys and 44.4% of English Learner girls did not meet any Grade Level standard during the 2016-2017 school year. In regard to the 2017-2018 school year, 46.6% of English Learner boys and 33.9% of English Learner girls did not meet any Grade Level standard. During the last school year analyzed, 39.7% of English Learner boys and 26.2% of English Learner girls did not meet any Grade Level standard. Although English Learner scores consistently increased, academic disparities between English Learners and their peers are still prevalent.
Connections to Existing Literature

As evident in this statewide investigation, English Learner girls performed statistically significantly higher than English Learner boys in the three school years of data that were analyzed. Although previous researchers have not established clear statistically significant differences between boys and girls, results contained in this study are congruent with Texas Education Agency (2019) and other data collected by researchers that academic performance can be influenced by demographic variables (Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). Findings from this investigation add to the existing research literature that English Learner girls outperform English Learner boys, results that are not consistent with the extant research literature.

Implications for Policy and Practice

Several implications for policy and for practice are present based on the findings of this multi-year investigation. First, policymakers are encouraged to continue funding and advocating for English Learners in the state of Texas as enrollment numbers continue to consistently increase for English Learners. Second, educators are encouraged to continue implementing new interventions geared toward English Learners in the form of tutorials, sheltered instruction practices, and general intervention groups. Third, educational leaders and teacher preparation programs should continue to advocate for English as a Second Language certifications as requirements in their districts. Lastly, a concerted effort should be made toward general awareness of the consistent gaps between English Learners and their peers.
Recommendations for Future Research

Based on the results of this investigation, several recommendations for future studies can be made. First, because only the STAAR Algebra 1 End-of-Course exam performance was examined for Grade 9 English Learners, researchers are recommended to replicate this study in other Grade Levels to ascertain the degree to which results described in this investigation are generalizable. Second, data on English Learners only in the State of Texas were the focus of this investigation. As such, researchers are encouraged to extend this study to other states to determine whether these results are consistent across the United States. Third, because only Algebra I End-of-Course test data were examined in this investigation, researchers are encouraged to analyze data in Biology, English I, English II, and U.S. History which students in Texas are required to take to fulfill graduation requirements. Fourth, English Learners were the only student group whose data were analyzed. Hence, researchers should consider analyzing performance for other student groups such as students identified as being at-risk, students enrolled in special education, and students in poverty. Lastly, researchers should examine the extent to which results in this investigation would be generalizable based on demographic characteristics such as ethnicity/race (i.e., Black, Hispanic, Asian, and White).

Conclusion

In this journal ready article, the extent to which differences were present between English Learner boys and girls in their performance on the Texas state-mandated Algebra 1 End-of-Course exam was examined. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level
performance measures: Approaches Grade Level, Meets Grade Level, and Masters Grade Level during the 2016-2017, 2017-2018, and 2018-2019 school years. Statistically significant differences were documented in the Algebra I End-of-Course exam performance of English Language boys and girls. English Learner girls outperformed English Learner boys in all Grade Level standards for all three school years that were analyzed.
References


Table 2.1

Frequencies and Percentages of STAAR Algebra I End-of-Course Approaches Grade Level Performance Standard by English Learner Gender for All Three School Years

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n and %age of Total</td>
<td>n and %age of Total</td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 6,106) 53.8%</td>
<td>(n = 5,245) 46.2%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 2,936) 44.4%</td>
<td>(n = 3,672) 55.6%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 11,468) 46.6%</td>
<td>(n = 13,139) 53.4%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 5,198) 33.9%</td>
<td>(n = 10,138) 66.1%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 10,396) 39.7%</td>
<td>(n = 15,779) 60.3%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 4,498) 26.2%</td>
<td>(n = 12,699) 73.8%</td>
</tr>
</tbody>
</table>
Table 2.2

*Frequencies and Percentages of STAAR Algebra I End-of-Course Meets Grade Level Performance Standard by English Learner Gender for All Three School Year*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$ and %age of Total</td>
<td>$n$ and %age of Total</td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 9,221)$ 81.2%</td>
<td>$(n = 2,130)$ 18.8%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 4,947)$ 74.9%</td>
<td>$(n = 1,661)$ 25.1%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 19,068)$ 77.5%</td>
<td>$(n = 5,539)$ 22.5%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 10,589)$ 69.0%</td>
<td>$(n = 4,747)$ 31.0%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 17,667)$ 67.5%</td>
<td>$(n = 8,508)$ 32.5%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 9,434)$ 54.9%</td>
<td>$(n = 7,763)$ 45.1%</td>
</tr>
</tbody>
</table>
Table 2.3

*Frequencies and Percentages of STAAR Algebra I End-of-Course Masters Grade Level Performance Standard by English Learner Gender for All Three School Years*

| School Year and Gender | Did Not Meet  
|------------------------|-----------------|
|                        | \( n \) and %age of Total | Met  
|                        | \( n \) and %age of Total |
| 2016-2017              |                              |                              |
| Boys                   | \((n = 10,772) 94.9\%\)     | \((n = 579) 5.1\%\)         |
| Girls                  | \((n = 6,074) 91.9\%\)     | \((n = 534) 8.1\%\)         |
| 2017-2018              |                              |                              |
| Boys                   | \((n = 22,432) 91.2\%\)     | \((n = 2,175) 8.8\%\)       |
| Girls                  | \((n = 13,456) 87.7\%\)     | \((n = 1,880) 12.3\%\)     |
| 2018-2019              |                              |                              |
| Boys                   | \((n = 22,426) 85.7\%\)     | \((n = 3,749) 14.3\%\)   |
| Girls                  | \((n = 13,424) 78.1\%\)     | \((n = 3,773) 21.9\%\)     |
Figure 2.1

Percentages of English Learners by Gender Who Did Not Meet the STAAR Algebra I End-of-Course Approaches Grade Level Performance Standard for All Three School Years
Figure 2.2

Percentages of English Learners by Gender Who Did Not Meet the STAAR Algebra I End-of-Course Meets Grade Level Performance Standard for All Three School Years
Figure 2.3

Percentages of English Learners by Gender Who Did Not Meet the STAAR Algebra I End-of-Course Masters Grade Level Performance Standard for All Three School Years
CHAPTER III
DIFFERENCES IN ENGLISH I AND ENGLISH II END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER: A MULTIYEAR STATEWIDE INVESTIGATION

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

The extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated English I and English II End-of-Course exams was examined. Specifically addressed was the extent to which English Learner boys and English Learner girls differed in their performance on three Grade Level performance standards: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Inferential statistical analyses of Texas statewide data revealed that English Learner girls had statistically significantly better STAAR English I End-of-Course exam performance than English Learner boys in all three school years, with an exception for the Masters Grade Level standard in the 2016-2017 school year. In regard to English II, English Learner girls had a statistically significantly better performance on the Approaches Grade Level standard and Meets Grade Level standard. In the 2016-2017 school year, English Learner boys and English Learner boys performed similarly on the Masters Grade Level standard. Results in all three school years were congruent with the existing research literature in that girls perform better in English than do boys. Implications and recommendations for future research were discussed.

KEYWORDS: English I and II End-of-Course exam; STAAR; TEA; STAAR End-of-Course exams; English Learner; Approaches Grade Level Standard; Meets Grade Level Standard; Masters Grade Level Standard
DIFFERENCES IN ENGLISH I AND ENGLISH II END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER: A MULTIYEAR STATEWIDE INVESTIGATION

Over 5 million English Learners were students enrolled in Grades K-12 in the 2017-2018 school year (National Center for Education Statistics, 2020). Of that figure, four states: California, Nevada, New Mexico, and Texas, had an English Learner population that was above 12%. Texas had one of the largest populations of English Learners with over 14% of its K-12 students being English Learners. According to the 2018-2019 Texas Education Agency (n.d.a), 20% of the public-school enrollment in the 2018-2019 school year were identified as English Learners. In comparison to national data, Texas serves approximately 1 in 5 of the country’s English Learners. Out of the 19 Regional Education Service Centers in Texas, 13 of the Regional Education Service Centers had 10-15% percent of their students who were English Learners (Texas Education Agency, n.d.a).

In the State of Texas, school accountability ratings are calculated using three domains: student achievement, school progress, and closing the gaps (Texas Education Agency, 2019). Student achievement and school progress make up 70% of a campus’ accountability rating whereas closing the gaps makes up the remaining 30% (Texas Education Agency, 2019). Under the School Progress domain, campuses earn credit for results that maintain academic performance or demonstrate growth under the State of Texas Assessments of Academic Readiness progress measure (Texas Education Agency, 2019). Therefore, student performance on state assessments, including the End-of-Course exams, has a strong influence on student achievement and school progress, thus
determining the rating that each campus receives. Of importance is to note that English Learners constitute a specific subpopulation in calculating the accountability rating of a campus. As such, educational leaders place additional intervention strategies on the academic achievement of this group of students.

In a recent Texas investigation, Sugarman and Geary (2018) documented that 81% of English Learners did not meet any of the Grade Level Standards of the English I End-of-Course exam in the 2016-2017 school year. This result was in comparison to the 71% of English Learners who did not meet any of the Grade Level Standards of the English I End-of-Course exam in the 2018-2019 school year. With respect to the English II End-of-Course exam, the Texas Education Agency (2019) reported that 29% of students with limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 14% of English Learners performed at the Meets Grade Level Standard; and 1% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 63% of students who performed at the Approaches Grade Level Standard; 49% of students who performed at the Meets Grade Level Standard; and 12% of students who performed at the Masters Grade Level Standard. These achievement gaps are cause for concern as English Learners performed 34% lower than their peers at the Approaches Grade Level Standard; 35% lower at the Meets Grade Level Standard; and 11% lower at the Masters Grade Level Standard.

With respect to first year tested students on the English I End-of-Course exam, the Texas Education Agency (2019) reported that 37% of English Learners performed at the Approaches Grade Level Standard; 20% of English Learners performed at the Meets Grade Level Standard; and only 1% of English Learners performed at the Masters Grade
Level Standard. These results were in stark contrast to the 70% of students who performed at the Approaches Grade Level Standard; 60% of students who performed at the Meets Grade Level Standard; and 15% of students who performed at the Masters Grade Level Standard. These statistics indicate that English Learners performed 33% lower at the Approaches Grade Level Standard; 40% lower at the Meets Grade Level Standards; and 14% lower at the Masters Grade Level Standard.

In that same investigation, Sugarman and Geary (2018) documented that 33% of English Learners did not meet any of the Grade Level Standards of the English II End-of-Course exam in the 2016-2017 school year. With respect to the English II End-of-Course exam, the Texas Education Agency (2019) reported that 26% of English Learners performed at the Approaches Grade Level Standard; 11% of English Learners performed at the Meets Grade Level Standard; and not a single English Learner performed at the Masters Grade Level Standard. These results were again in stark contrast to the 67% of students who performed at the Approaches Grade Level Standard; 51% of students who performed at the Meets Grade Level Standard; and 8% of students who performed at the Masters Grade Level Standard. Achievement gaps for this End-of-Course exam were that English Learners performed 41% lower at the Approaches Grade Level Standard; 40% lower at the Meets Grade Level Standards; and 8% lower at the Masters Grade Level Standard.

Regarding first year tested students on the English II End-of-Course exam, the Texas Education Agency (2019) reported that 34% of English Learners performed at the Approaches Grade Level Standard; 16% of English Learners performed at the Meets Grade Level Standard; and not a single English Learner performed at the Masters Grade
Level Standard. These results were again in stark contrast to the 76% of students who performed at the Approaches Grade Level Standard; 60% of students who performed at the Meets Grade Level Standard; and 10% of students who performed at the Masters Grade Level Standard. These statistics were reflective that English Learners performed 42% lower at the Approaches Grade Level Standard; 44% lower at the Meets Grade Level Standards; and 10% lower at the Masters Grade Level Standard.

After an intensive review of the literature related to English I and English II End-of-Course exam performance, no published articles could be located in which English I and English II exam data had been analyzed with respect to the performance of English Learner boys and girls. Extensive literature is available on the STAAR Reading performance of Grades 3 and 5 English Learners in Texas, particularly with reference to bilingual programs (e.g., Gates & Lichtenberg, 2005; Mendez et al., 2017; Snyder et al., 2017; Villalobos & Slate, 2021). Moreover, the research literature is replete with articles on gender differences on standardized assessments (e.g., Duckworth & Seligman, 2006; Heafner & Fitchett, 2017; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019; Rojas-LeBouef, 2010).

Though no empirical studies could be located to determine whether English Learner boys differed from English Learner girls in their English I End-of-Course exams, the Texas Education Agency (2019) reported that 57% of boys performed at the Approaches Grade Level Standard; 42% of boys performed at the Meets Grade Level Standard; and 8% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 71% of girls who performed at the Approaches Grade Level Standard; 58% of girls who performed at the Meets Grade Level Standard; and 16% of
girls who performed at the Masters Grade Level Standard. Higher percentages of girls met all three standards than did boys.

With respect to the English II End-of-Course exam performance by gender, the Texas Education Agency (2019) reported that 61% of boys performed at the Approaches Grade Level Standard; 45% of boys performed at the Meets Grade Level Standard; and 6% of boys performed at the Masters Grade Level Standard. These results were in comparison to the 74% of girls who performed at the Approaches Grade Level Standard; 58% of girls who performed at the Meets Grade Level Standard; and 11% of girls who performed at the Masters Grade Level Standard. Similar to the English I End-of-Course exam results, higher percentages of girls met all three standards than did boys.

Of relevance to this article is a longitudinal investigation conducted by Wright (2015) in which he examined the reading skills of Texas high school boys and girls on the Texas Assessment of Knowledge and Skills Exit Level English Language Arts exam. This measure was the state-mandated reading assessment prior to the STAAR exam. In his eight-year investigation (i.e., 2004-2005 through 2011-2012), Wright (2015) established that girls had statistically higher reading test scores than boys in all eight school years and across all of the reading objectives. These results were congruent with the existing research literature that English Learner girls outperform English Learner boys on the English I and II End-of-Course exams.

**Statement of the Problem**

Substantial and continued numbers of individuals have immigrated to the United States from Mexico, Central, and South American countries during this past decade (López et al., 2015). Included in the rising number of individuals immigrating to the
United States are thousands of English Learners who become part of the education system in the United States. Because of the constant growth in the numbers of English Learners, emphasis had been placed on meeting their academic needs. English Learners and their academic performance play an integral part in accountability and school ratings. For this study, English I and II performance was measured on the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course exams. Present was an emphasis on English Learners by gender in the State of Texas, which is a state that has a consistent growing population of immigrant students at all Grade Levels.

**Purpose of the Study**

The purpose of this study was to determine the extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated End-of-Course exam in English I and English II. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard. Through analyzing three school years of statewide data, the degree to which a trend might be present was ascertained.

**Significance of the Study**

Results from this study will add to the existing research literature available on the English I and English II End-of-Course exam Grade Level performance of English Learner boys and girls. English Learner boys and girls have different academic success levels. As of the time of this article being conducted, few researchers, however, have examined the degree to which English Learner boys and girls differed in their performance on the Texas state-mandated English I and English II End-of-Course exams.
Research Questions

The following research questions were addressed in this study: (a) What is the difference between English Learner boys and girls in their performance at the Approaches Grade Level standard on the English I and English II End-of-Course exams?; (b) What is the difference between English Learner boys and girls in their performance at the Meets Grade Level Standard on the English I and English II End-of-Course exams?; (c) What is the difference between English Learner boys and girls in their performance at the Masters Grade Level Standard on the English I and English II End-of-Course exams?; and (d) What trend is present in the performance of English Learner boys and girls on the three Grade Level standards across the three school years of data analyzed? The first three research questions were analyzed separately for three school years: 2016-2017, 2017-2018, and 2018-2019, whereas the last research question involved comparisons across all three school years.

Method

Research Design

The data for the study were acquired from the Texas Education Agency Public Management System (Texas Education Agency, n.d.b). The research design for this multi-year analysis was a casual-comparative research design because of the use of already existing data from multiple school years (Johnson & Christensen, 2020). The independent variable in the study was English Learner gender. Dependent variables in this study were the English I and II End-of-Course exam Grade Level Standards at the (a) Approaches Grade Level, (b) Meet Grade Level, and (c) Masters Grade Level for the 2016-2017, 2017-2018, and 2018-2019 school years.
Participants and Instrumentation

Participants in this study were English Learner boys and English Learner girls in Texas who took the English I and English II End-of-Course exams in the 2016-2017, 2017-2018, and 2018-2019 school years. The data that were analyzed herein were previously obtained from the Texas Education Agency Public Education Information Management System database for the English I and English II End-of-Course exams that were administered in the 2016-2017, 2017-2018, and 2018-2019 school years. A Public Information Request was previously submitted to and was fulfilled by the Texas Education Agency to obtain the data. Datasets requested and obtained were for: (a) Grade Level, (b) English I and English II End-of-Course Performance Level Standards, (c) Limited English Proficient indicator, and (d) gender. Upon receipt, the data were then imported into the Statistical Package for Social Sciences software program (SPSS) for analysis (Field, 2009).

Performance on the STAAR Phase-in standards was examined by gender. Assessed by the English I and English II End-of-Course exams are three categories for performance. In the Approaches Grade Level Category: Performance in this category indicates that students are likely to succeed in the next grade or course (Texas Education Agency, 2018). In the Meets Grade Level Category: Performance in this category indicates that students have a high probability of academic success in the next grade or course (Texas Education Agency, 2018). Students may still need some type of short-term and targeted academic intervention. In the Masters Grade Level Category: Performance in this category indicates that students are expected to succeed in the next grade or course. Students who perform within this category need very little to no academic
intervention (Texas Education Agency, 2018). Students in this category demonstrate the ability to think critically and apply the assessed knowledge and skills in varied contexts, both familiar and unfamiliar (Texas Education Agency, 2018).

**Results**

To ascertain whether differences were present in STAAR English I and II End-of-Course exam performance (i.e., Did Not Meet, Met) at the Approaches Grade Level, Meets Grade Level, and Masters Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school years, Pearson chi-square analyses were conducted. This statistical procedure was viewed as the optimal statistical procedure to use because frequency data were present for STAAR English I and II End-of-Course exam performance, Grade Level standard, and for English Learner gender. When the independent variables and dependent variables are categorical in nature, Pearson chi-squares are an appropriate inferential statistical procedure (Slate & Rojas-LeBouef, 2011). Given the statewide sample that was obtained, the available sample size per cell was more than five. Accordingly, the assumptions for using Pearson chi-square procedures were met.

**STAAR English I End-of-Course Approaches Grade Level Analyses Across All Three School Years**

For the first research question on the STAAR English I End-of-Course exam performance at the Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 321.22, p < .001$. The effect size for this finding, Cramer’s V, was below small, .07 (Cohen, 1988). As revealed in Table 3.1, a statistically significantly higher percentage of English Learner girls, more than 4
percentage points, met the STAAR English I End-of-Course exam Approaches Grade Level standard than did English Learner boys.

With respect to the 2017-2018 school year, the Pearson chi-square revealed the presence of a statistically significant difference, $\chi^2(1) = 449.80, p < .001$, Cramer’s V, was below small, .08 (Cohen, 1988). As delineated in Table 3.1, a statistically significantly higher percentage of English Learner girls, more than 6 percentage points higher, met the STAAR English I End-of-Course exam Approaches Grade Level standard than did English Learner boys. Concerning the 2018-2019 school year, a statistically significant difference was yielded, $\chi^2(1) = 656.46, p < .001$, below small effect size, Cramer’s $V = .09$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 7 percentage points higher, met the STAAR English I End-of-Course exam Approaches Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 3.1.

**STAAR English I End-of-Course Meets Grade Level Analyses Across All Three School Years**

Regarding the 2016-2017 school year for the STAAR English I End-of-Course Meets Grade Level standard, a statistically significant result was yielded, $\chi^2(1) = 132.37, p < .001$, below small effect size, Cramer’s $V = .04$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 2 percentage points
higher, met the STAAR English I End-of-Course Meets Grade Level standard than did English Learner boys. Table 3.2 contains the descriptive statistics for this analysis.

With respect to the 2017-2018 school year, the result was statistically significant, $\chi^2(1) = 292.10, p < .001$, below small effect size, Cramer’s $V = .06$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 2 percentage points higher, met the STAAR English I End-of-Course Meets Grade Level standard than did English Learner boys. Delineated in Table 3.2 are the descriptive statistics for this analysis. Concerning the 2018-2019 school year, a statistically significant difference was yielded, $\chi^2(1) = 525.98, p < .001$, below small effect size, Cramer’s $V=.08$ (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 4 percentage points higher, met the STAAR English I End-of-Course exam Meets Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 3.2.

**STAAR English I End-of-Course Masters Grade Level Analyses Across All Three School Years**

For the third research question on the STAAR English I End-of-Course exam performance at the Masters Grade Level standard, the result approached but did not reach the conventional level of statistical significance, $\chi^2(1) = 3.20, p = .07$, Cramer’s $V$, below small effect size, .01 (Cohen, 1988). As presented in Table 3.3, a higher percentage of
Concerning the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 18.57, p < .001$. The effect size for this finding, Cramer’s V, was below small, .02 (Cohen, 1988). As revealed in Table 3.3, a statistically significantly higher percentage of English Learner girls, less than 1 percentage points higher, met the STAAR English I End-of-Course exam Masters Grade Level standard than did English Learner boys. With respect to the 2018-2019 school year, the Pearson chi-square yielded the presence of a statistically significant difference, $\chi^2(1) = 50.32, p < .001$, below small effect size, Cramer’s V= .02 (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, less than 1 percentage points higher, met the STAAR English I End-of-Course exam Masters Grade Level standard than did English Learner boys. Delineated in Table 3.3 are the descriptive statistics for this analysis.

**English I End-of-Exam Course Performance Across All Three School Years**

In regard to the Approaches Grade Level standard, English Learner girls outperformed English Learner boys in all three school years. The percentages of English Learner girls and English Learner boys who met the Approaches Grade Level standard consistently increased each school year. The percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard decreased consistently after each year. Of emphasis should be that more than 70% of English Learner boys and
English Learner girls did not meet this standard, which means that the same percentage of students did not reach any of the Grade Level standards. The percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard are depicted in Figure 3.1.

With respect to the Meets Grade Level standard, English Learner girls consistently outperformed English Learner boys in all three school years. Contrary to the Approaches Grade Level standard, English Learners did not have better performance after each school year. Readers should note the high percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard. For the 2016-2017 school year, 93.3% of English Learner boys and 90.9% of English Learner girls did not meet this standard; 95.2% of English Learner boys and 92.3% of English Learner girls did not meet this standard during the 2017-2018 school year; and 92.5% of English Learner boys and 87.8% of English Learner girls did not meet this standard during the last year of this study. Portrayed in Figure 3.2 are the percentages of English Learner boys and girls who did not meet this Grade Level standard for this analysis.

In regard to the Masters Grade Level standard, English Learner girls outperformed English Learner boys in the 2017-2018 and 2018-2019 school years.
Statistically significant results were not present for this Grade Level standard in the 2016-2017 school year. Higher percentages of English Learner boys and English Learner girls did not meet this Grade Level standard in comparison to the other two Grade Level standards. More than 99% of English Learners did not meet this Grade Level standard in all three school years. Depicted in Figure 3.3 are the percentages of English Learner boys and English Learner girls who did not meet the Grade Level standard for this analysis.

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Insert Figure 3.3 about here

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**English II End-of-Course Approaches Grade Level Analyses Across All Three School Years**

For the research question on the STAAR English II End-of-Course exam performance at the Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 129.89, p < .001$. The effect size for this finding, Cramer’s V, was below small, .05 (Cohen, 1988). As revealed in Table 3.4, a statistically significantly higher percentage of English Learner girls, more than 3 percentage points higher, met the STAAR English II End-of-Course exam Approaches Grade Level standard than did English Learner boys.

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Insert Table 3.4 about here

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With respect to the 2017-2018 school year, the Pearson chi-square revealed the presence of a statistically significant difference, $\chi^2(1) = 188.02, p < .001$, Cramer’s V,
was below small, .06 (Cohen, 1988). As delineated in Table 3.4, a statistically significantly higher percentage of English Learner girls, more than 4 percentage points higher, met the STAAR English II End-of-Course exam Approaches Grade Level standard than did English Learner boys.

Concerning the 2018-2019 school year, a statistically significant difference was yielded, $\chi^2(1) = 213.05, p < .001$, below small effect size, Cramer’s V = .06 (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 4 percentage points higher, met the STAAR English II End-of-Course exam Approaches Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 3.4.

**STAAR English II End-of-Course Meets Grade Level Analyses Across All Three School Years**

Regarding the 2016-2017 school year for the STAAR English II End-of-Course Meets Grade Level standard, a statistically significant result was yielded, $\chi^2(1) = 38.10, p < .001$, below small effect size, Cramer’s V = .03 (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 1 percentage points higher, met the STAAR English II End-of-Course Meets Grade Level standard than did English Learner boys. Table 3.5 contains the descriptive statistics for this analysis.

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Insert Table 3.5 about here
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With respect to the 2017-2018 school year, the result was statistically significant, $\chi^2(1) = 105.47, p < .001$, below small effect size, Cramer’s V = .04 (Cohen, 1988). A
statistically significantly higher percentage of English Learner girls, more than 2 percentage points higher, met the STAAR English II End-of-Course Meets Grade Level standard than did English Learner boys. Delineated in Table 3.5 are the descriptive statistics for this analysis. Concerning the 2018-2019 school year, a statistically significant difference was yielded, \( \chi^2(1) = 170.37, p < .001 \), below small effect size, Cramer’s V = .05 (Cohen, 1988). A statistically significantly higher percentage of English Learner girls, more than 2 percentage points higher, met the STAAR English II End-of-Course exam Meets Grade Level standard than did English Learner boys. Descriptive statistics for this analysis are contained in Table 3.5.

**STAAR English II End-of-Course Masters Grade Level Analyses Across All Three School Years**

For the research question on the STAAR English II End-of-Course exam performance at the Masters Grade Level standard for the 2016-2017 school year, a statistically significant difference was not present, \( \chi^2(1) = 0.00, p = .99 \). Similar percentages of English Learner boys and girls met the Masters Grade Level standard in this school year. The descriptive statistics for this analysis are presented in Table 3.6.

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Insert Table 3.6 about here
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Concerning the 2017-2018 school year, a statistically significant difference was yielded, \( \chi^2(1) = 14.80, p < .001 \). The effect size for this finding, Cramer’s V, was below small, .02 (Cohen, 1988). As revealed in Table 3.6, a statistically significantly higher percentage of English Learner girls, less than 1 percentage point higher, met the STAAR
English II End-of-Course exam Masters Grade Level standard than did English Learner boys. With respect to the 2018-2019 school year, the Pearson chi-square yielded a statistically significant difference, $\chi^2(1) = 11.58$, $p < .001$, below small effect size, Cramer’s $V = .01$ (Cohen, 1988). A statistically significantly higher number of English Learner boys met the STAAR English II End-of-Course exam Masters Grade Level standard than did English Learner girls. Delineated in Table 3.6 are the descriptive statistics for this analysis.

**English II End-of-Exam Course Performance Across All Three School Years**

Concerning the Approaches Grade Level standard, English Learner girls outperformed English Learner boys in all three school years. English Learner girls and English Learner boys who met the Approaches Grade Level standard consistently increased each school year. Of concern is that more than 75% of English Learner boys and English Learner girls did not meet this standard in all three school years. The percentages of English Learner boys and English Learner girls who did not meet this Grade Level standard are depicted in Figure 3.4.

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Insert Figure 3.4 about here

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With respect to the Meets Grade Level standard, English Learner girls consistently outperformed English Learner boys in all three school years. English Learner boys and English Learner girls did not demonstrate a consistent increase in performance following each school year. More than 91% of English Learner boys and English Learner girls did not meet this standard. Shown in Figure 3.5 are the percentages of English
Learner boys and English Learner girls who did not meet this Grade Level standard for this analysis.

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Insert Figure 3.5 about here

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Regarding the Masters Grade Level standard, English Learner girls outperformed English Learner boys in the 2017-2018 and 2018-2019 school years. Similar to the STAAR English I End-of-Course exams, a very high percentage, more than 99%, of English Learner boys and English Learner girls did not meet this Grade Level standard. Depicted in Figure 3.6 are the percentages of English Learner boys and English Learner girls who did not meet the Grade Level standard.

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Insert Figure 3.6 about here

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**Discussion**

The performance of English Learner boys and English Learner girls on the English I and II End-of-Course Grade Level performance was addressed in this multiyear investigation. The three Grade Level standards that were investigated were: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Based on the results of this empirical investigation, statistically significant differences were present between English Learner boys and English Learner girls for almost all Grade Level standards.

With respect to the English I End-of-Course exam, statistically significant differences were present in all Grade Level standard for all three school years, with the
exception of the Masters Grade Level standard in the 2016-2017 school year. English Learner girls outperformed English Learner boys in all of the Grade Level standards that yielded statistically significant results. Of concern in performance for all Grade Level standards is that almost three-fourths of English Learner boys and English Learner girls did not meet any Grade Level standard. As such, these students had to receive targeted intervention practices to improve their performance in this exam to help them pass this End-of-Course exam (Texas Education Agency, 2014).

Concerning the English II End-of-Course exam, statistically significant differences were established between English Learner boys and English Learner girls in all but one of the Grade Level standards. Similar percentage of English Learner boys and girls met the Masters Grade Level standard in the 2016-2017 school year. Similar to the English I End-of-Course exam, three-fourths of English Learner boys and English Learner girls did not meet any Grade Level standard. These results are cause for concern because of the high percentages of English Learners who need targeted interventions in one subject area that may be preventing many students from fulfilling their graduation requirements.

**Connections to Existing Literature**

In this empirical investigation, English Learner girls performed statistically significantly higher than English Learner boys in all but two of the statistical analyses that were conducted. These results are congruent with the existing research literature and Texas statewide STAAR End-of-Course exam data in that girls outperform boys in English and reading (Sugarman & Geary, 2018; Texas Education Agency, 2019; Wright, 2015). Findings from this multiyear statewide investigation are also commensurate with
the extant research literature on the high percentages of students who are not successful on the English I and English II End-of-Course exams.

**Implications for Policy and Practice**

Based on the results of this multi-year investigation, several implications for policy and practice exist. In regard to policy, due to the consistent increase in English Learners across the state, policymakers should continue funding and advocating for English Learners and other at-risk student groups. In terms of practice, teachers and district level educators are encouraged to implement intervention strategies focused on English Learners and closing of the educational gaps. In addition, advocacy for English as a Second Language and other supplemental certifications should be required for districts serving large number of English Learners. With this action, schools and districts are promoting general awareness of the consistent gaps between English Learners, other student groups, and their peers.

**Recommendations for Future Research**

Based on the results of this empirical, multiyear study, several recommendations for future investigations can be made. First, because only data on Grade 9 students were analyzed herein, researchers are recommended to replicate this study in other Grade Level exams to ascertain the degree to which results delineated herein might be generalizable to students in other Grade Levels. Second, only data from the State of Texas were analyzed in this article. As such, researchers are encouraged to extend this study to other states to determine whether the findings described might be generalizable to English Learners in other states. Third, because data on only English I and II exams were examined in this investigation, researchers are encouraged to analyze data in
Algebra, Biology, and U.S. History. Fourth, English Learners were the only student demographic whose data were analyzed. Hence, researchers should consider analyzing performance of other student populations such as at-risk, students in poverty, and students in special education. Lastly, researchers should examine the extent to which results in this investigation would be generalizable based on demographic characteristics such as ethnicity/race (i.e., Black, Hispanic, and White).

**Conclusion**

In this article, the extent to which differences were present between English Learner boys and English Learner girls in their performance on the Texas state-mandated End-of-Course exam in English I and II were examined. Specifically addressed was the degree to which English Learner boys and English Learner girls differed in their performance on three Grade Level performance measures: Approaches Grade Level, Meets Grade Level, and Masters Grade Level in the 2016-2017, 2017-2018, and 2018-2019 school years.

Inferential statistical analyses revealed that English Learner girls had statistically significantly better STAAR English I End-of-Course exam performance than English Learner boys in all three school years, except for the Masters Grade Level standard in the 2016-2017 school year. In regard to English II, English Learner girls demonstrated a statistically significantly better performance on all Grade Level standards with the exception of the Masters Grade Level standard during the 2016-2017 school year.
References


Table 3.1

Frequencies and Percentages of STAAR English I End-of-Course Approaches Grade Level Performance Standard by English Learner Gender for All Three School Years

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n and %age of Total</td>
<td>n and %age of Total</td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 39,168) 89.3%</td>
<td>(n = 4,714) 10.7%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 22,802) 84.7%</td>
<td>(n = 4,128) 15.3%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 40,686) 83.9%</td>
<td>(n = 7,779) 16.1%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 23,604) 77.9%</td>
<td>(n = 6,683) 22.1%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 41,949) 81.0%</td>
<td>(n = 9,836) 19.0%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 23,752) 73.5%</td>
<td>(n = 8,565) 26.5%</td>
</tr>
</tbody>
</table>
Table 3.2

*Frequencies and Percentages of STAAR English I End-of-Course Meets Grade Level Performance Standard by English Learner Gender for All Three School Year*

| School Year and Gender | Did Not Meet  
|------------------------|---------------------------------|
|                        | n and % of Total | Met  
|                        | n and % of Total |                               |
| 2016-2017              |                  |                               |
| Boys                   | $(n = 40,943)$ 93.3% | $(n = 2,939)$ 6.7% |
| Girls                  | $(n = 24,491)$ 90.9% | $(n = 2,439)$ 9.1% |
| 2017-2018              |                  |                               |
| Boys                   | $(n = 46,160)$ 95.2% | $(n = 2,305)$ 4.8% |
| Girls                  | $(n = 27,954)$ 92.3% | $(n = 2,333)$ 7.7% |
| 2018-2019              |                  |                               |
| Boys                   | $(n = 47,901)$ 92.5% | $(n = 3,884)$ 7.5% |
| Girls                  | $(n = 28,366)$ 87.8% | $(n = 3,951)$ 12.2% |
Table 3.3

*Frequencies and Percentages of STAAR English I End-of-Course Masters Grade Level Performance Standard by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$ and % of Total</td>
<td>$n$ and % of Total</td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 43,497)$ 99.1%</td>
<td>$(n = 385)$ 0.9%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 26,658)$ 99.0%</td>
<td>$(n = 272)$ 1.0%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 48,431)$ 99.9%</td>
<td>$(n = 34)$ 0.1%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 30,234)$ 99.8%</td>
<td>$(n = 53)$ 0.2%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 51,683)$ 99.8%</td>
<td>$(n = 102)$ 0.2%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 32,164)$ 99.5%</td>
<td>$(n = 153)$ 0.5%</td>
</tr>
</tbody>
</table>
Table 3.4

*Frequencies and Percentages of STAAR English II End-of-Course Approaches Grade Level Performance Standard by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet n and %age of Total</th>
<th>Met n and %age of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 26,599) 90.0%</td>
<td>(n = 2,971) 10.0%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 17,509) 86.6%</td>
<td>(n = 2,698) 13.4%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 28,635) 84.8%</td>
<td>(n = 5,122) 15.2%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 18,821) 80.4%</td>
<td>(n = 4,574) 19.6%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>(n = 30,263) 82.1%</td>
<td>(n = 6,590) 17.9%</td>
</tr>
<tr>
<td>Girls</td>
<td>(n = 19,112) 77.3%</td>
<td>(n = 5,601) 22.7%</td>
</tr>
</tbody>
</table>
Table 3.5

*Frequencies and Percentages of STAAR English II End-of-Course Meets Grade Level Performance Standard by English Learner Gender for All Three School Year*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet (n) and %age of Total</th>
<th>Met (n) and %age of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 27,404) 92.7%)</td>
<td>((n = 2,166) 7.3%)</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 18,419) 91.2%)</td>
<td>((n = 1,788) 8.8%)</td>
<td></td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 32,156) 95.3%)</td>
<td>((n = 1,601) 4.7%)</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 21,817) 93.3%)</td>
<td>((n = 1,578) 6.7%)</td>
<td></td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 34,582) 93.8%)</td>
<td>((n = 2,271) 6.2%)</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 22,501) 91.0%)</td>
<td>((n = 2,212) 9.0%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.6

*Frequencies and Percentages of STAAR English II End-of-Course Masters Grade Level Performance Standard by English Learner Gender for All Three School Years*

| School Year and Gender | Did Not Meet  
| n and % of Total | Met  
| n and % of Total |
|-----------------------|------------------|
| **2016-2017**         |                  |
| Boys                  | (n = 29,271) 99.0% | (n = 299) 1.0% |
| Girls                 | (n = 20,003) 99.0% | (n = 204) 1.0% |
| **2017-2018**         |                  |
| Boys                  | (n = 33,744) 100.00% | (n = 13) 0.0% |
| Girls                 | (n = 23,365) 99.9% | (n = 30) 0.1% |
| **2018-2019**         |                  |
| Boys                  | (n = 36,830) 99.9% | (n = 23) 0.1% |
| Girls                 | (n = 24,676) 99.9% | (n = 37) 0.1% |
Figure 3.1

Percentages of English Learners by Gender Who Did Not Meet the STAAR English I End-of-Course Approaches Grade Level Performance Standard for All Three School Years
Figure 3.2

Percentages of English Learners by Gender Who Did Not Meet the STAAR English I End-of-Course Meets Grade Level Performance Standard for All Three School Years
Figure 3.3

Percentages of English Learners by Gender Who Did Not Meet the STAAR English I End-of-Course Masters Grade Level Performance Standard for All Three School Years
Figure 3.4

Percentages of English Learners by Gender Who Did Not Meet the STAAR English II End-of-Course Approaches Grade Level Performance Standard for All Three School Years
Figure 3.5

Percentages of English Learners by Gender Who Did Not Meet the STAAR English II End-of-Course Meets Grade Level Performance Standard for All Three School Years
Figure 3.6

Percentages of English Learners by Gender Who Did Not Meet the STAAR English II End-of-Course Masters Grade Level Performance Standard for All Three School Years
CHAPTER IV

DIFFERENCES IN U.S. HISTORY END-OF-COURSE EXAM GRADE LEVEL PERFORMANCE OF TEXAS HIGH SCHOOL ENGLISH LEARNERS BY GENDER:

A MULTIYEAR STATEWIDE INVESTIGATION

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

The extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated End-of-Course exam in U.S. History was addressed. Specifically examined was whether English Learner boys and girls differed in their performance on three Grade Level performance measures in the 2016-2017, 2017-2018, and 2018-2019 school years. Inferential statistical analyses revealed that English Learner boys exhibited statistically significantly better STAAR U.S. History End-of-Course exam performance than English Learner girls in all three school years on the Meets Grade Level and Master Grade Level standards. English Learner boys and English Learner girls performed similarly on the Approaches Grade Level standard in all three school years. Results were congruent with the existing research literature in that English Learner boys outperform English Learner girl in Social studies and History exams. Implications and recommendations for future research were discussed.

KEYWORDS: U.S. History End-of-Course exam; STAAR; TEA; STAAR End-of-Course exams; English Learner; Approaches Grade Level Standard; Meets Grade Level Standard; Masters Grade Level Standard
According to the National Center for Education Statistics (2020), about 5 million English Learners were enrolled in public schools in 2017 across the United States. This figure comprises 10.1% of the student population. This number was in comparison to the 3.6 million English Learners who were enrolled in public schools in the United States in 2000. At that time, English Learners were 8.1% of the student population (National Center for Education Statistics, 2020). With respect to the state of interest for this article, Texas, the Texas Education Agency reported that 1,015,182 PreK-12 students, or 19% of its students, were English Learners (Sugarman & Geary, 2018; Texas Education Agency, n.d.).

Federal education legislation such as The Elementary and Secondary Education Act of 1965, The No Child Left Behind Act of 2001, and most recently, the Every Student Succeeds Act of 2015 have placed a clear focus on student academic achievement and accountability for all students. Consequently, educational leaders have placed a clear emphasis on reducing academic disparities between student groups enrolled in public schools (Fraga & Slate, 2020). One of the major student groups that has evident disparities is English Learners. The growing academic disparities between English Learners and their peers have forced educational leaders and educators to seek educational practices that will best meet the needs of these students. Lazarín (2008) concluded that one of the main challenges for English Learners who arrive in the United States is high school completion and graduation due to the state accountability
requirements, which in Texas includes the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course exams in the areas of Algebra I, Biology, English I, English II, and U.S. History.

Aside from mastering the English language, high school English Learners are required to meet graduation requirements set forth by federal and state legislation aimed at attaining academic achievement and progress for all student groups. Cook et al. (2011) noted that English Learners are required to learn the language, negotiate multiple academic environments, make sense of complex content, and are required to demonstrate academic growth all at one time, which contributes to the academic disparities that exist between English Learners and their peers. English Learners perform below Grade Level in every subject that is federally tested for accountability purposes (Soland, 2019). According to the Nation’s Report Card (2019), only 1% of English Learners performed at or above the proficient level in 2018 on the National Assessment of Educational Progress U.S. History assessment and only 21% of English Learners performed at or above the basic level that same year. These statistics are in stark contrast to the 16% of non-English Learners who performed at or above the proficient level and to 69% of non-English Learners who performed at or above the basic level in 2018.

With respect to Texas, Craft (2011) examined the academic performance of Grade 8 White, Hispanic, and English Learners in reading, mathematics, science, and social studies for the 2002-2003 through 2003-2010 school years. Craft (2011) established the presence of statistically significant achievement gaps between the aforementioned groups of students in all four academic areas. Of interest to this article was that English Learners had the poorest performance of the three groups of students in all four academic areas.
(Craft, 2011). Craft (2011) documented that the average passing rate in social studies for English Learners was 59.44% throughout the seven school years of data that were analyzed. Though academic gaps between English Learners and their peers have diminished over the years in social studies and other core subject areas, educational leaders across Texas and the United States are still concerned about the academic disparities that still exist between English Learners and their counterparts (Fraga & Slate, 2020; Gandara, 2010; Hemphill & Vanneman, 2011; Sugarman & Geary, 2018).

In a recent investigation conducted in Texas, Sugarman and Geary (2018) documented that 31% of English Learners did not meet any of the Grade Level Standards of the U.S. History End-of-Course exam in the 2016-2017 school year. According to the Texas Education Agency (2017), students who perform at the Approaches Grade Level Standard are likely to succeed with targeted interventions; students who perform at the Meets Grade Level Standard have a high probability of success in the next grade or course with some targeted interventions; and students at the Masters Grade Level Standard are expected to succeed in the next grade or course with no interventions. The Texas Education Agency (2019) reported that 74% of students with Limited English Proficiency (i.e., English Learners) performed at the Approaches Grade Level Standard; 36% of English Learners performed at the Meets Grade Level Standard; and 12% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 93% of students who performed at the Approaches Grade Level Standard; 75% of students who performed at the Meets Grade Level Standard; and 47% of students who performed at the Masters Grade Level Standard. Of concern here is that English Learners performed 19% lower than their peers at the Approaches Grade Level
Standard; 39% lower at the Meets Grade Level Standard; and 35% lower at the Masters Grade Level Standard on the U.S. History End-of-Course exam in the 2016-2017 school year.

Concerning first year tested students, The Texas Education Agency (2019) reported that 78% of English Learners performed at the Approaches Grade Level Standard; 39% of English Learners performed at the Meets Grade Level Standard; and 13% of English Learners performed at the Masters Grade Level Standard. These results were in comparison to the 94% of students who performed at the Approaches Grade Level Standard; 77% of students who performed at the Meets Grade Level Standard; and 48% of students who performed at the Masters Grade Level Standard. These statistics were reflective that first year tested English Learners performed 16% lower than their peers at the Approaches Grade Level Standard; 38% lower at the Meets Grade Level Standard; and 45% lower at the Masters Grade Level Standard.

Evidence exists of the presence of gender differences in these subject areas. Heafner and Fitchett (2017) and Moore et al. (2012) have documented that boys outperform girls on Advanced Placement U.S. History exams. In their study, Heafner and Fitchett (2017) examined gender differences in relation to the curriculum that was assessed on the 2010 National Assessment of Educational Progress U.S. History exam administered to Grade 12 students. Girls were more likely to answer questions related to their interests, which has substantial implications on academic performance in Social studies because social studies curriculum is heavily focused on political and military history, which favors boys. Heafner and Fitchett (2018) determined that girls’ reception
of social studies content is affected by the continuous disregard for women in the curriculum, which affects the interest that girls have in social studies.

Moore et al. (2012) examined College Board Advanced Placement exam data for the May 2007 and May 2011 administrations to determine whether gender differences were present. Moore et al. (2012) analyzed data from the top 10 Advanced Placement exams most frequently taken by boys and girls. With respect to U.S. History, the focus of this article, Moore et al. (2012) established that boys had statistically significantly higher test scores than did girls. In contrast to these two studies, however, Dania (2014) concluded that the quality of instruction that students receive is the true indicator for success in social studies and that the academic achievement in social studies is the same for boys and girls.

After an extensive and intensive review of the literature related to U.S. History End-of-Course exam performance, no published articles could be located in which U.S. History exam data had been analyzed with respect to the performance of English Learner boys and girls. The research literature is replete with articles on gender differences related to academic performance in mathematics and reading and motivation behind student performance (e.g., Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). In a directly related area, social studies, only a few researchers have investigated gender differences in this area. In a recent investigation, conducted in Texas, Dietrich (2019) analyzed Texas statewide data for the 2004-2005 to the 2011-2012 school years on the state-mandated assessment administered to Grade 11 Texas high school students. She established the presence of statistically significant differences in social studies skills between boys and girls. In her investigation,
girls had lower average test scores than boys in all five social studies skills (i.e., history, geography, economics and social influences, political influences, and overall social studies skills). These gender differences were consistent and remained unchanged across the 2004-2005 to 2011-2012 school years.

In relation to gender differences on the U.S. History End-of-Course exam, the Texas Education Agency (2019) reported that 92% of boys performed at the Approaches Grade Level Standard; 77% of boys performed at the Meets Grade Level Standard; and 51% of boys performed at the Masters Grade Level Standard on the U.S. History End-of-Course exam. These results were in comparison to the 94% of girls who performed at the Approaches Grade Level Standard; 74% of girls who performed at the Meets Grade Level Standard; and 43% of girls who performed at the Masters Grade Level Standard. Readers should note that boys performed 2% lower than girls at the Approaches Grade Level Standard; girls performed 3% lower than boys at the Meets Grade Level Standard; and girls performed 8% lower at the Masters Grade Level Standard than boys.

Statement of the Problem

The number of English Learners in public schools throughout the State of Texas continues to grow consistently (López et al., 2015). Due to the continued increase of English Learners across the State of Texas, a focus has been placed on closing the academic achievement gaps between English Learners and their peers through the implementation of interventions targeted to meet the social, emotional, and academic needs of English Learners. Additionally, English Learners who are in high school are required to pass five End-of-Course exams as a graduation requirement in the State of Texas. For this investigation, U.S. History scores were measured on the STAAR End-of-
Course exam. Present was a focus on English Learners by gender in the State of Texas, a state that has a consistent growing population of immigrant students at all Grade Levels.

**Purpose of the Study**

The purpose of this study was to determine the extent to which differences were present between English Learner boys and English Learner girls in their performance on the Texas state-mandated End-of-Course exam in U.S. History. Specifically examined was the extent to which English Learner boys and English Learner girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard. Through analyzing three school years of statewide data, the degree to which a trend was present was determined.

**Significance of the Study**

This study was conducted to add to the existing research literature available on the U.S. History End-of-Course exam Grade Level performance of English Learner boys and girls. English Learner boys and girls have different academic success levels. As of the time of this article being conducted, few researchers, however, had examined the degree to which English Learner boys and English Learner girls differed in their performance on the Texas state-mandated U.S. History End-of-Course exam.

**Research Questions**

The following research questions were addressed in this study: (a) What is the difference between English Learner boys and girls in their performance at the Approaches Grade Level standard on the U.S. History End-of-Course exam?; (b) What is the difference between English Learner boys and girls in their performance at the Meets
Grade Level Standard on the U.S. History End-of-Course exam?; (c) What is the difference between English Learner boys and girls in their performance at the Masters Grade Level Standard on the U.S. History End-of-Course exam?; and (d) What trend is present in the performance of English Learner boys and girls on the three Grade Level standards across the three school years of data analyzed? The first three research questions were analyzed separately for three school years: 2016-2017, 2017-2018, and 2018-2019, whereas the last research question involved comparisons across all three school years.

**Method**

**Research Design**

Data for this study were obtained from the Texas Education Agency Public Education Information Management System (2018). The independent variable present in this multi-year analysis was the gender of English Learners and the dependent variables were the U.S. History End-of-Course exam student performance at the three different Grade Level Standards: (a) Approaches Grade Level Standard, (b) Meets Grade Level Standard, and (c) Masters Grade Level Standards during all three years analyzed. A causal-comparative research design is viewed as the optimal research design because pre-existing data was analyzed herein (Johnson & Christensen, 2020).

**Participants and Instrumentation**

Participants in this study were English Learner boys and English Learner girls in Texas who took the U.S. History End-of-Course exam in the 2016-2017, 2017-2018, and 2018-2019 school years. The data that were analyzed herein were previously obtained from the Texas Education Agency Public Education Information Management System database for the U.S. History End-of-Course exam that was administered in the 2016-
2017, 2017-2018, and 2018-2019 school years. A Public Information Request was previously submitted to and was fulfilled by the Texas Education Agency to obtain the data. Datasets requested and obtained were for: (a) Grade Level, (b) U.S. History End-of-Course Performance Level Standards, (c) Limited English Proficient indicator, and (d) gender. Upon receipt, the data were then imported into the Statistical Package for Social Sciences software program (SPSS) for analysis (Field, 2009).

Performance on the STAAR Phase-in standards were examined by gender. Assessed by the U.S. History End-of-Course exam are three categories for performance. In the Approaches Grade Level Category: Performance in this category indicates that students are likely to succeed in the next grade or course (Texas Education Agency, 2018). In the Meets Grade Level Category: Performance in this category indicates that students have a high probability of academic success in the next grade or course (Texas Education Agency, 2018). Students may still need some type of short-term and targeted academic intervention. In the Masters Grade Level Category: Performance in this category indicates that students are expected to succeed in the next grade or course. Students who perform within this category need very little to no academic intervention (Texas Education Agency, 2018). Students in this category demonstrate the ability to think critically and apply the assessed knowledge and skills in varied contexts, both familiar and unfamiliar (Texas Education Agency, 2018).

Results

To ascertain whether differences were present in STAAR U.S. History End-of-Course exam performance (i.e., Did Not Meet, Met) at the Approaches Grade Level, Meets Grade Level, and Masters Grade Level standards based on English Learner gender
for the 2016-2017, 2017-2018, and 2018-2019 school years, Pearson chi-square analyses were conducted. This statistical procedure was an appropriate statistical procedure to use because frequency data were present for STAAR U.S. History End-of-Course exam performance, Grade Level standard, and for English Learner gender. Accordingly, chi-squares are the statistical procedure of choice when variables are categorical (Slate & Rojas-LeBouef, 2011). The available sample size per cell was more than five. As such, the assumptions for using Pearson chi-square procedures were met.

**Approaches Grade Level Analyses Across All Three School Years**

For the first research question on the STAAR U.S. History End-of-Course Approaches Grade Level standard for the 2016-2017 school year, the result was not statistically significant, $\chi^2(1) = 1.11, p = .29$. As revealed in Table 4.1, similar percentages of English Learner boys and English Learner girls met the Approaches Grade Level standard.

With respect to the 2017-2018 school year, the result approached, but did not reach, the conventional level of statistical significance, $\chi^2(1) = 3.40, p = .06$, Cramer’s $V$, was below small, .02 (Cohen, 1988), a statistically significantly higher percentage of English Learner boys, more than 1 percentage points higher, met the Approaches Grade Level standard than did English Learner girls. Table 4.1 contains the descriptive statistics for this analysis.
Concerning the 2018-2019 school year, a statistically significant difference was not yielded, $\chi^2(1) = 0.20, p = .66$. Similar percentages of English Learner boys and girls met this Approaches Grade Level standard. Descriptive statistics for this analysis are contained in Table 4.1.

**Meets Grade Level Analyses Across All Three School Years**

Regarding the 2016-2017 school year for the U.S. History EOC Meets Grade Level standard, a statistically significant result was yielded, $\chi^2(1) = 11.18, p < .001$, below small effect size, Cramer’s $V = .06$ (Cohen, 1988). A statistically significantly higher percentage of English Learner boys, more than 4 percentage points higher, met this Grade Level standard than did English Learner girls. Table 4.2 contains the descriptive statistics for this analysis.

[Insert Table 4.2 about here]

With respect to the 2017-2018 school year, the result was statistically significant, $\chi^2(1) = 59.60, p < .001$, below small effect size, Cramer’s $V = .07$ (Cohen, 1988). A statistically significantly higher percentage of English Learner boys, more than 6 percentage points higher, met this Meets Grade Level standard than did English Learner girls. Delineated in Table 4.2 are the descriptive statistics for this analysis. Concerning the 2018-2019 school year, a statistically significant difference was yielded, $\chi^2(1) = 78.91, p < .001$, below small effect size, Cramer’s $V = .08$ (Cohen, 1988). A statistically significantly higher percentage of English Learner boys, more than 7 percentage points
higher, met this Meets Grade Level standard than did English Learner girls. Descriptive statistics for this analysis are contained in Table 4.2.

**Masters Grade Level Analyses Across All Three School Years**

For the third research question on STAAR U.S. History End-of-Course exam performance at the Masters Grade Level differences, the result was statistically significant, \( \chi^2(1) = 3.89, p = .049 \). The effect size for this finding, Cramer’s V, was below small, .03 (Cohen, 1988). As presented in Table 4.3, a statistically significantly higher percentage of English Learner boys, more than 1 percentage point higher, met the STAAR U.S. History End-of-Course exam Meets Grade Level standard than did English Learner girls.

Concerning the 2017-2018 school year, a statistically significant difference was yielded, \( \chi^2(1) = 32.62, p < .001 \). The effect size for this finding, Cramer’s V, was below small, .05 (Cohen, 1988). As revealed in Table 4.3, a statistically significantly higher percentage of English Learner boys, more than 3 percentage points higher, met this Masters Grade Level standard than did English Learner girls. With respect to the 2018-2019 school year, the Pearson chi-square revealed the presence of a statistically significant difference, \( \chi^2(1) = 91.41, p < .001 \), below small effect size, Cramer’s V= .08 (Cohen, 1988). A statistically significantly higher percentage of English Learner boys, more than 5 percentage points higher, met this Masters Grade Level standard than did
English Learner girls. Delineated in Table 4.3 are the descriptive statistics for this analysis.

**U.S. History End-of-Exam Course Performance Across All Three School Years**

Concerning the Approaches Grade Level standard, statistically significant differences were not present. Similar percentages of English Learner boys and girls met this Approaches Grade Level standard. These percentages are depicted in Figure 4.1.

![Insert Figure 4.1 about here](image1)

With respect to the Meets Grade Level standard, English Learner boys consistently outperformed English Learner girls in all three school years. Readers should note that high percentages, 75.7% of English Learner boys and 80.6% of English Learner girls, did not meet the Masters Grade Level standard in the 2016-2017 school year; 66.2% of English Learner boys and 72.9% of English Learner girls did not meet the Meets Grade Level standard in the 2017-2018 school year; and 63% of English Learner boys and 70.4% of English Learner girls did not meet the Meets Grade Level standard in the 2018-2019 school year. Shown in Figure 4.2 are the percentages of English Learners who did not meet this standard.

![Insert Figure 4.2 about here](image2)

In regard to the Masters Grade Level standard, English Learner boys outperformed English Learner girls in all three school years. The differences in
performance between English Learner boys and English Learner girls increased consistently increased in all three school years. In all three school years, more than 86% of English Learner boys and English Learner girls did not meet this standard. Depicted in Figure 4.3 are the percentages of English Learners who did not meet the Grade Level standard for this analysis.

Insert Figure 4.3 about here

Discussion

In this Texas statewide multiyear analysis, the STAAR U.S. History End-of-Course Grade Level performance was investigated by English Learner gender. Three Grade Level standards were analyzed: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Statistically significant differences were revealed between English Learner boys and English Learner girls for the Meets Grade Level standard and the Masters Grade Level standard. English Learner boys outperformed English Learner girls in these two Grade Level standards. Performance gaps between English Learner boys and girls increased each school year.

Based on the results, 49.9% of English learner boys and 51.3% of English Learner girls did not meet any Grade Level standard during the 2016-2017 school year. The percentage of English Learner boys and English Learner girls who did not meet any Grade Level standard decreased during the 2017-2018 school year because 31.9% of English Learner boys and 33.5% of English Learner girls did not meet any Grade Level
Standard. During the 2018-2019 school year, 30.1% of English Learner boys and 29.8% of English Learner girls did not meet any Grade Level standard.

**Connections to Existing Literature**

As presented in the results of this Texas statewide investigation, English Learner boys performed statistically significantly higher than English Learner girls during the three school years that were analyzed at the Meets Grade Level standard and Masters Grade Level standard. Performance at the Approaches Grade Level standard did not yield statistically significant results for all three school years. Past researchers (Dietrich, 2019; Moore et al., 2012) have established statistically significant differences between boys and girls in social studies. Findings from this multiyear investigation add to the existing research literature that boys outperform girls in social studies and history (Dietrich, 2019; Heafner & Fitchett, 2017; Moore et al., 2012).

**Implications for Policy and Practice**

The results of this multi-year investigation provide several implications for policy and practice. To begin, statewide campus and district administrators should continue focusing on professional development strategies that assist teachers in providing targeted interventions for English Learners. Second, a targeted effort should be placed on encouraging all teachers and prospective teaching candidates to certify themselves in English as a Second Language to serve the growing number of English Learners in the State of Texas. Lastly, a focus should be placed on the general awareness of the growing achievement gaps between English Learners and their peers along with how these achievement gaps affect accountability ratings. These implications for policy and practice
can provide a shift in mindset that can be beneficial in improving scores for English Learners.

**Recommendations for Future Research**

Based on the results of this investigation, several recommendations for future studies can be made. First, in this study exam data of Grade 9 students were analyzed. As such, researchers are recommended to replicate this study in other Grade Levels. The degree to which the results discussed herein would be generalizable to other Grade Levels is not known. Second, exam data on English Learners in Texas were analyzed in this article. The degree to which the results delineated herein would generalize to English Learners in other states is not known. Accordingly, researchers are encouraged to extend this study to other states to determine whether these results would be generalizable. Third, because only U.S. History test data were examined in this investigation, researchers are encouraged to analyze data in Algebra, I, Biology, English I, and English II which students in Texas are required to take to fulfill graduation requirements. Fourth, English Learners were the only student demographic whose data were analyzed. The extent to which the findings presented in this study would be generalizable to other student demographic groups is not known. Accordingly, researchers are encouraged to conduct future research on other student characteristics such as economically disadvantaged, at-risk, and ethnicity/race.

**Conclusion**

In this article, the extent to which differences were present between English Learner boys and English Learner girls in their performance on the Texas state-mandated End-of-Course exam in U.S. History was addressed. Specifically examined was the
extent to which English Learner boys and English Learner girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard in the 2016-2017, 2017-2018, and 2018-2019 school years.

Statistically significant differences between English Learner boys and English Learner girls on their U.S. History End-of-Course exam. English Learner boys had statistically significant high performance at the Meets Grade Level standard and Masters Grade Level standard in all three school years. Similar performance was present on the Approaches Grade Level standards.
References


Table 4.1

Frequencies and Percentages of STAAR U.S. History End-of-Course Approaches Grade Level Performance Standard by English Learner Gender for All Three School Years

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet (n) and %age of Total</th>
<th>Met (n) and %age of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>((n = 928)) 49.4%</td>
<td>((n = 950)) 50.6%</td>
</tr>
<tr>
<td>Girls</td>
<td>((n = 727)) 51.3%</td>
<td>((n = 691)) 48.7%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>((n = 2,072)) 31.9%</td>
<td>((n = 4,423)) 68.1%</td>
</tr>
<tr>
<td>Girls</td>
<td>((n = 1,685)) 33.5%</td>
<td>((n = 3,341)) 66.5%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>((n = 2,329)) 30.1%</td>
<td>((n = 5,400)) 69.9%</td>
</tr>
<tr>
<td>Girls</td>
<td>((n = 1,666)) 29.8%</td>
<td>((n = 3,929)) 70.2%</td>
</tr>
</tbody>
</table>
Table 4.2

*Frequencies and Percentages of STAAR U.S. History End-of-Course Meets Grade Level Performance Standard by English Learner Gender for All Three School Year*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n and %age of Total</td>
<td>n and %age of Total</td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 1,422)$ 75.7%</td>
<td>$(n = 456)$ 24.3%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 1,143)$ 80.6%</td>
<td>$(n = 275)$ 19.4%</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 4,297)$ 66.2%</td>
<td>$(n = 2,198)$ 33.8%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 3,662)$ 72.9%</td>
<td>$(n = 1,364)$ 27.1%</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>$(n = 4,871)$ 63.0%</td>
<td>$(n = 2,858)$ 37.0%</td>
</tr>
<tr>
<td>Girls</td>
<td>$(n = 3,939)$ 70.4%</td>
<td>$(n = 1,656)$ 29.6%</td>
</tr>
</tbody>
</table>
Table 4.3

*Frequencies and Percentages of STAAR U.S. History End-of-Course Masters Grade Level Performance Standard by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Gender</th>
<th>Did Not Meet ( n ) and % of Total</th>
<th>Met ( n ) and % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2016-2017</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 1,776))</td>
<td>94.6% ((n = 102)) 5.4%</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 1,362))</td>
<td>96.1% ((n = 56)) 3.9%</td>
<td></td>
</tr>
<tr>
<td><strong>2017-2018</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 5,874))</td>
<td>90.4% ((n = 621)) 9.6%</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 4,694))</td>
<td>93.4% ((n = 332)) 6.6%</td>
<td></td>
</tr>
<tr>
<td><strong>2018-2019</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys ((n = 6,779))</td>
<td>87.7% ((n = 950)) 12.3%</td>
<td></td>
</tr>
<tr>
<td>Girls ((n = 5,191))</td>
<td>92.8% ((n = 404)) 7.2%</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4.1

Percentages of English Learners by Gender Who Did Not Meet the STAAR U.S. History End-of-Course Approaches Grade Level Performance Standard for All Three School Years
Figure 4.2

Percentages of English Learners by Gender Who Did Not Meet the STAAR U.S. History End-of-Course Meets Grade Level Performance Standard for All Three School Years
Figure 4.3

Percentages of English Learners by Gender Who Did Not Meet the STAAR U.S. History End-of-Course Masters Grade Level Performance Standard for All Three School Years
CHAPTER V
DISCUSSION

The purpose of this journal-ready dissertation was to determine the extent to which differences were present for English Learner boys and girls in their performance on four of the five Texas state-mandated End-of-Course exams. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard during the 2016-2017, 2017-2018, and 2018-2019 school years. In the first article, the extent to which differences were present for English Learner boys and girls in their performance on the STAAR Algebra I End-of-Course exam was examined. In the second article, the purpose was to determine whether differences were present for English Learner boys and girls in their performance on the STAAR English I and II End-of-Course exams. In the third and final article, the purpose was to analyze differences in performance of English Learner boys and girls on the STAAR U.S. History End-of-Course exam.

The results for all three of the investigations are discussed in this chapter. Next, implications for policy and practice and recommendations for future research will be provided. Lastly, a summary will then conclude this final chapter in this journal-ready dissertation.

Discussion of Article One Results

In the first article, Algebra I End-of-Course Grade Level performance was investigated by English Learner gender. Three Grade Level standards were addressed: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Statistically
significant differences were revealed between English Learner boys and girls for all three Grade Level standards in all three school years. English Learner girls outperformed English Learner boys in all instances.

A concerning focus of the results is that more than half of English Learner boys and under half of English Learner girls did not meet any Grade Level standard during the 2016-2017 school year. In regard to the 2017-2018 school year, almost half of English Learner boys and more than one-third of English Learner girls did not meet any Grade Level standard. During the last school year analyzed, more than one-third of English Learner boys and more than one-fourth of English Learner girls did not meet any Grade Level standard. The results of the statistical analyses, statistical significance, effect size, and lowest performing groups for the STAAR Algebra I End-of-Course Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school year are summarized in Table 5.1.

**Table 5.1**

*Summary of Results of STAAR Algebra I End-of-Course Grade Level Standards by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
</tbody>
</table>

(continued)
Discussion of Article Two Results

The performance of English Learner boys and English Learner girls on the English I and II End-of-Course Grade Level performance was addressed in the second article. The same three Grade Level standards that were investigated were: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Based on the results of this empirical investigation, statistically significant differences were present between English Learner boys and English Learner girls for almost all Grade Level standards.

With respect to the English I End-of-Course exam, statistically significant differences were present in all Grade Level standards for all three school years, with the exception of the Masters Grade Level standard in the 2016-2017 school year. English Learner girls outperformed English Learner boys in all of the Grade Level standards that yielded statistically significant results. Of concern in performance for all Grade Level standards is that almost three-fourths of English Learner boys and English Learner girls did not meet any Grade Level standards. As such, these students had to receive targeted intervention practices to improve their performance in this exam to help them pass this End-of-Course exam (Texas Education Agency, 2014). The results of the statistical analyses for the STAAR English I End-of-Course Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school year are summarized in Table 5.2.

<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Small</td>
<td>Boys</td>
</tr>
</tbody>
</table>
Table 5.2

Summary of Results of STAAR English I End-of-Course Grade Level Standards by English Learner Gender for All Three School Years

<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>No</td>
<td>Below Small</td>
<td>N/A</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
</tbody>
</table>

Concerning the English II End-of-Course exam, statistically significant differences were established between English Learner boys and English Learner girls in all but one of the Grade Level standards. Similar percentage of English Learner boys and girls met the Masters Grade Level standard in the 2016-2017 school year. Similar to the English I End-of-Course investigation, three-fourths of English Learner boys and English Learner girls did not meet any Grade Level standard. These results are cause for concern because of the high percentages of English Learners who need targeted interventions in one subject area that may be preventing many students from fulfilling their graduation
requirements. The results of the statistical analyses for the STAAR English II End-of-Course Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school year are presented in Table 5.3.

**Table 5.3**

*Summary of Results of STAAR English II End-of-Course Grade Level Standards by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>No</td>
<td>Below Small</td>
<td>N/A</td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
</tbody>
</table>

**Discussion of Article Three Results**

In the third article, the STAAR U.S. History End-of-Course Grade Level performance was investigated by English Learner gender. Three Grade Level standards were analyzed: Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Statistically significant differences were revealed between English Learner boys and
English Learner girls for the Meets Grade Level standard and the Masters Grade Level standard. English Learner boys and English Learner girls performed similarly in the Approaches Grade Level standard for all three school years analyzed. Performance gaps between English Learner boys and girls increased each school year.

Based on the results, about half of English learner boys and more than half of English Learner girls did not meet any Grade Level standard during the 2016-2017 school year. The percentage of English Learner boys and English Learner girls who did not meet any Grade Level standard decreased during the 2017-2018 school year because about one-third of English Learner boys and slightly more than one-third of English Learner girls did not meet any Grade Level Standard. During the 2018-2019 school year, one-third of English Learner boys and almost one-third of English Learner girls did not meet any Grade Level standard. Results of the statistical analyses for the STAAR U.S. History End-of-Course Grade Level standards by English Learner gender for the 2016-2017, 2017-2018, and 2018-2019 school year are delineated in Table 5.2.

Table 5.4

*Summary of Results of STAAR U.S. History End-of-Course Grade Level Standards by English Learner Gender for All Three School Years*

<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017 Approaches</td>
<td>No</td>
<td>Below Small</td>
<td>N/A</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>School Year and Standard</th>
<th>Statistically Significant</th>
<th>Effect Size</th>
<th>Lowest Performing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>No</td>
<td>Below Small</td>
<td>N/A</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approaches</td>
<td>No</td>
<td>Below Small</td>
<td>Boys</td>
</tr>
<tr>
<td>Meets</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
<tr>
<td>Masters</td>
<td>Yes</td>
<td>Below Small</td>
<td>Girls</td>
</tr>
</tbody>
</table>

**Connections with the Existing Literature**

As evident in the results of the first study, English Learner girls performed statistically significantly higher than English Learner boys in the three school years of data that were analyzed in the Algebra I End-of-Course exam. Although previous researchers have not established clear statistically significant differences between boys and girls in Algebra, results contained in this study are congruent with Texas Education Agency (2019) and other data collected by researchers that academic performance can be influenced by demographic variables (Duckworth & Seligman, 2006; Kurtz-Costes et al., 2008; Leaper et al., 2012; Reilly et al., 2019). Findings from this investigation add to the existing research literature that English Learner girls outperform English Learner boys, results that are not consistent with the extant research literature.

In the second empirical investigation on the English I and II End-of-Course exams, English Learner girls performed statistically significantly higher than English Learner boys in all but two of the statistical analyses that were conducted. These results
are congruent with the existing research literature and Texas Education Agency statewide STAAR End-of-Course exam data in that girls outperform boys in English and reading (Sugarman & Geary, 2018; Texas Education Agency, 2019; Wright, 2015). Findings from this multiyear statewide investigation are also commensurate with the extant research literature on the high percentages of students who are not successful on the English I and English II End-of-Course exams.

As presented in the results of the third investigation about the U.S. History End-of-Course exam, English Learner boys performed statistically significantly higher than English Learner girls during the three school years that were analyzed at the Meets Grade Level standard and Masters Grade Level standard. Performance at the Approaches Grade Level standard did not yield statistically significant results for all three school years. Past researchers (Dietrich, 2019; Moore et al., 2012) have established statistically significant differences between boys and girls in Social studies. Findings from this multiyear investigation add to the existing research literature that boys outperform girls in Social studies and History (Dietrich, 2019; Heafner & Fitchett, 2017; Moore et al., 2012).

**Implications for Policy and Practice**

Several implications for policy and for practice are present based on the findings of this journal-ready investigation. First, policymakers are encouraged to continue funding and advocating for English Learners in the State of Texas as enrollment numbers continue to consistently increase for English Learners. Second, educators are encouraged to continue implementing new interventions geared towards English Learners in the form of tutorials, sheltered instruction practices, and general intervention groups. Third, educational leaders and teacher preparation programs should continue to advocate for
English as a Second Language (ESL) certifications as requirements in their districts. Lastly, a concerted effort should be made towards general awareness of the consistent gaps between English Learners and their peers.

**Recommendations for Future Research**

Based on the results of the first study, several recommendations for future studies can be made. First, because only the STAAR Algebra 1 End-of-Course exam performance was examined for Grade 9 English Learners, researchers are recommended to replicate this study in other Grade Levels to ascertain the degree to which results described in this investigation are generalizable. Second, data on English Learners only in the State of Texas were the focus of this investigation. As such, researchers are encouraged to extend this study to other states to determine whether these results are consistent across the United States. Third, because only Algebra I End-of-Course test data were examined in this investigation, researchers are encouraged to analyze data in Biology, English I, English II, and U.S. History which students in Texas are required to take to fulfill graduation requirements. Fourth, English Learners were the only student group whose data were analyzed. Hence, researchers should consider analyzing performance for other student groups such as students identified as being at-risk, students enrolled in special education, and students in poverty. Lastly, researchers should examine the extent to which results in this investigation would be generalizable based on demographic characteristics such as ethnicity/race (i.e., Black, Hispanic, Asian, and White).

Based on the results of the investigation focused on English I and II, several recommendations for future investigations can be made. First, because only data on
Grade 9 students were analyzed herein, researchers are recommended to replicate this study in other Grade Level exams to ascertain the degree to which results delineated herein might be generalizable to students in other Grade Levels. Second, only data from the State of Texas were analyzed in this article. As such, researchers are encouraged to extend this study to other states to determine whether the findings described might be generalizable to English Learners in other states. Third, because data on only English I and II exams were examined in this investigation, researchers are encouraged to analyze data in Algebra, Biology, and U.S. History. Fourth, English Learners were the only student demographic whose data were analyzed. Hence, researchers should consider analyzing performance for other student populations such as at-risk, students in poverty, and students in special education. Lastly, researchers should examine the extent to which results in this investigation would be generalizable based on demographic characteristics such as ethnicity/race (i.e., Black, Hispanic, and White).

Based on the results of the third investigation, several recommendations for future studies can be made. First, in this study exam data on only Grade 9 students were analyzed. As such, researchers are recommended to replicate this study in other Grade Levels. The degree to which the results discussed herein would be generalizable to other Grade Levels is not known. Second, exam data on English Learners in Texas were analyzed in this article. The degree to which the results delineated herein would generalize to English Learners in other states is not known. Accordingly, researchers are encouraged to extend this study to other states to determine whether these results would be generalizable. Third, because only U.S. History test data were examined in this investigation, researchers are encouraged to analyze data in Algebra, I, Biology, English
I, and English II which students in Texas are required to take to fulfill graduation requirements. Fourth, English Learners were the only student demographic whose data were analyzed. The extent to which the findings presented in this study would be generalizable to other student demographic groups is not known. Accordingly, researchers are encouraged to conduct future research on other student characteristics such as economically disadvantaged, at-risk, and ethnicity/race.

**Conclusion**

The purpose of this journal-ready dissertation was to determine the extent to which differences were present for English Learner boys and girls in their performance on the Texas state-mandated End-of-Course exam in Algebra I, English I and II, and U.S. History. Specifically examined was the extent to which English Learner boys and girls differed in their performance on three Grade Level performance measures: Approaches Grade Level standard, Meets Grade Level standard, and Masters Grade Level standard during the 2016-2017, 2017-2018, and 2018-2019 school years.

The Algebra I End-of-Course exam yielded statistically significant differences between English Learner girls and boys. English Learner girls outperformed boys in all three Grade Level standards by three percentage points or more in all three school years. On the English I End-of-Course exam, English Learner girls outperformed English Learner boys in all three of the Grade Level standards in all three school years with the exception of the Masters Grade Level standard during the 2016-2017 school year where boys and girls had similar results. Concerning the English II End-of-Course exam, the results were similar to the English I End-of-Course exam. English Learner girls outperformed English Learner boys in all three of the Grade Level standards in all three
school years except for the Masters Grade Level standard in the 2016-2017 school year. Lastly, U.S. History End-of-Course exam results were that English Learners boys outperformed English Learner girls in the Meets Grade Level standard and Masters Grade Level standard in all three years. English Learner boys and girls had similar percentages in the Approaches Grade Level standard revealing no statistically significant results in all three years.

Based on the results of this journal-ready dissertation, English Learner girls outperform boys in three of the five Texas state-mandated End-of-Course exams (i.e., Algebra I, English I, and English II). Consistent with the literature, boys outperform girls in the U.S. History End-of-Course exam. Future researchers can investigate differences in performance in the Biology End-of-Course exam to determine gender differences between an already low performing student group in the State of Texas.
REFERENCES


Date: Jun 29, 2021 10:27:27 AM CDT

TO: Yeri Villalobos John Slate
FROM: SHSU IRB
PROJECT TITLE: Difference in Algebra I, English I AND English II, and U.S. History End-of-Course Exam Grade Level Performance of Texas High School English Learners by Gender: A Multyear Statewide Investigation
PROTOCOL #: IRB-2021-189
SUBMISSION TYPE: Initial
ACTION: Exempt
DECISION DATE: June 29, 2021
EXEMPT REVIEW CATEGORY:

OPPORTUNITY TO PROVIDE FEEDBACK: To access the survey, click here. It only takes 10 minutes of your time and is voluntary. The results will be used internally to make improvements to the IRB application and/or process. Thank you for your time.

Greetings,

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,

Chase Young, Ph.D.
Chair, IRB
Hannah R. Gerber, Ph.D.
Co-Chair, IRB
VITA
Yeri J. Villalobos

Academic Degrees

Doctorate of Education, Sam Houston State University
Educational Leadership, December 2021
Dissertation: Differences in Algebra I, English I and II, and U.S. History End-of-Course Exam Grade Level Performance of Texas High School English Learners by Gender: A Multiyear Statewide Investigation

Master of Education, Sam Houston State University
Educational Administration, December 2017

Bachelor of Arts, University of Houston- Clear Lake
History with 7-12 Social studies, May 2015

Professional Experience

2021-Present   Galena Park High School, Galena Park ISD
               Assistant Principal

2018-2021   North Shore Middle School, Galena Park ISD
               Assistant Principal

2015-2018   North Shore Senior High School, Galena Park ISD
               11th Grade U.S. History Teacher

Professional Licensures and Certifications

Principal, EC-12
Social studies, 7-12

Honors and Awards

Award for Outstanding Early Career in Teaching
Humanities Texas

Rookie of the Year
Galena Park ISD and North Shore Senior High School

Presentations and Publications