RESEARCH ARTICLE

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Gender Differences in the Reading Performance of Texas Grade 3 English Language Learners: A Multiyear, Statewide Investigation

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

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

1. Introduction

English Language Learners are students whose native language was one other than English. The population of students in the United States who are English Language Learners has increased by 4.4 million students, or 0.5% over the last 10 years [1]. This population has steadily increased over the last decade and is projected to continue to grow. Specifically in reference to Texas, the [2] reported that the enrollment of English Language Learners increased by 269,091, or 37.8%, between the 2005-2006 and the 2015-2016 school years. In the 2005-2006 school year, 15.7% of the population were identified as English Language Learners whereas during the 2015-2016 school 18.5 % of the students were identified English Language Learners. Given this increase in the English Language Learner population in Texas in recent years, educational leaders need to know how to address their unique academic needs. Though non-native English speakers have been present in public schools for decades, with the addition of standardized testing and accountability, a strong emphasis has been focused on all students meeting expectations.

In a recent National Assessment of Educational Progress report, [3] analyzed the results from the 2005 mathematics and reading assessments given to a random sample of Grade 4 and 8 students in the United States. In this national sample, English Language Learners had statistically significantly lower mathematics and reading assessments than their peers in Grade 4. These achievement gaps increased from Grade 4 to Grade 8 for English Language Learners.

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

With reference to student gender, [5] reviewed data on 8,503 participants in the Early Childhood Longitudinal Study-Kindergarten cohort. These data were derived from a national longitudinal study with a sample of over 20,000 participants who were in kindergarten during the 1998-1999 school year. [5] documented that girls had an initial score higher than boys and a greater growth rate in reading than boys. Other researchers [e.g., 6, 7, 8] have also provided evidence that girls outperform boys in reading. Due to the early advantages that girls have, they continue to outperform boys throughout their educational careers. Concerning mathematics, boys outperform girls in the later grades [5].

In a statewide Texas investigation, [9] explored the extent to which achievement gaps persisted in Texas for Grade 5 students in reading and mathematics over a 16-year period from 1993 until 2009. During that time span, the Texas Education Agency transitioned from the Texas Assessment of Academic Skills to the Texas Assessment of Knowledge and Skills, thus resulting in some years not having compatible tests. Even so, in all instances, English Language Learners had statistically significantly lower average reading and mathematics test scores than Hispanic non-English Language Learners. Despite the school reform efforts implemented because of the mandates of No Child Left Behind Act, students who were English Language Learners continue to obtain lower test scores than their White peers. Part of this separation of achievement is due to the "White flight" or decreased enrollment of Whites in public schools [10, p. 560). This movement of White students to public school has increased the achievement gap within the public and private schools [11, 10].

In an empirical statewide analysis in Texas, [12] examined gender differences in college readiness in reading, in mathematics, and in both subject areas. They analyzed data from the Scholastic Assessment Test (SAT) and the American College Test (ACT) for the 2005-2006 and the 2006-2007 school years. In their Texas statewide investigation, they documented that girls had statistically significantly better college readiness skills in reading and in both subjects, whereas boys had statistically significantly better mathematics college readiness skills. In their study, slightly more than one third, 38.76%, of boys were college-ready reading, compared to over half, 51.01%, of girls who were college-ready in reading. Statistically significant differences were also determined by [12] between boys and girls in their percentages of taking the SAT or ACT. In their investigation, 66.7% of girls took the ACT or SAT compared to a smaller percentage, 59.7%, of boys who took the ACT or the SAT.

In a similar study in Texas, [13] compared the science passing rates of boys and girls. They used the Texas state-mandated science assessment for students in Grades 5, 8, and 11 for three consecutive school years. In each of the three grade levels and in each of the three school years, boys had statistically significantly higher passing rates on the science exam than did girls. Given that the need for science related jobs has increased, it is imperative to address the gender gap to ensure equality for all [14].

In another recent study conducted in Texas, [15] analyzed data on the 2012-2013 through the 2014-2015 State of Texas Assessment of Academic Readiness Reading tests for Grade 3 boys and girls. [15] established that girls had statistically significantly higher reading scores than boys in each of the three school years. Grade 3 girls outscored boys on each of the three Reading Reporting Categories and on the Level II Final Satisfactory Performance Standard in all four school years. Effect sizes for her statistically significant results ranged from trivial to moderate.

In a similar study in Texas, [16] examined the State of Texas Assessment of Academic Readiness Mathematics and Science scores for Grade 8 boys and girls for four consecutive school years. Congruent with previous researchers, boys statistically significantly outperformed girls in both mathematics and in science, with one exception, where in one school year, boys and girls had similar mathematics scores. With the underrepresentation of girls in Science, Technology, Engineering, and Mathematics (STEM) careers, changes to the practices of teachers and educational leaders is needed [14].

Specifically in reference to English Language Learners, [17] collected narrative language samples over a 3-year period, including six samples between kindergarten and second grade. [17] documented that girls outperformed boys in their growth rates across outcome measures throughout the duration of the study. This disparity was present in both English and in Spanish, and could contribute to the achievement gap between boys and girls.

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

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

The following research questions were addressed in this multiyear analysis: (a) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Level II Academic Performance measures (i.e., Phase in 1, Phase in 2, and Final Satisfactory)?; (b) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Level III Academic Performance?; (c) What is the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Category 1: Understanding Across Genres.?; (d) What is

the difference between Grade 3 English Language Learner boys and girls in their STAAR Reading Reporting Category 2:

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

2. Method

2.1 Research Design

For this investigation, the research design that was present was a causal-comparative investigation [18]. Archival data were analyzed in this multiyear investigation. A causal-comparative research design was present because the independent variable of gender is not alterable and the dependent variables of student reading scores had already occurred. When archival data are analyzed, neither the independent variable nor the dependent variables can be manipulated [18].

2.2 Participation and Instrumentation

Participants in this study were Grade 3 English Language Learner boys and girls who completed the State of Texas Assessment of Academic Readiness Reading assessments during the 2012-2013, 2013-2014, and/or 2014-2015 school year. English Language Learners are students who are "in the process of acquiring English and has another language as the first native language" (Chapter 89.1203 of 19). During the 2011-2012 school year, Texas changed the mandatory standardized achievement test from the Texas Assessment of Knowledge and Skills to the State of Texas Assessment of Academic Readiness. With this change, Texas changed from assessing students on basic skills to assessing students on the application of the knowledge and skills [20]. Students are assessed in reading in Grades 3 through 8.

On each assessment, test creators use the blueprint to determine which Texas Essential Knowledge and Standards are tested each year. Texas Essential Knowledge and Skills are further delineated into Readiness Standards and Supporting Standards. Readiness Standards vary for each grade level and content area but are most critical for students to be successful in the current grade level and to be prepared for the next course [21]. Supporting Standards are concepts and content that are newly introduced in the current grade level and prepare students for the next grade level but not critical for students to master the current grade level [21].

The Texas Education Agency defines reading skills across three reporting categories of the State of Texas Assessment of Academic Readiness Reading exam in Grade 3. Students' ability to demonstrate basic reading understanding across genres (i.e., fiction, poetry, drama, literary non-fiction, expository, persuasive) by determining "the meaning of grade-level academic words in English, using context to determine the meaning of unfamiliar words, and comparing and contrasting themes or moral lessons" is assessed in Reporting Category 1 [22, 2011, para. 3). In Reporting Category 2, students must demonstrate the ability "to comprehend and analyze literary texts (i.e., fiction, poetry,

drama, literary nonfiction) for elements such as foreshadowing, character development, sensory detail, and figurative language" [22, para. 4). For Reporting Category 3, students must be able "to comprehend and analyze informational texts (i.e., expository, persuasive) by demonstrating the ability to summarize the main idea and supporting details, analyze organizational patterns and text features, and make logical connections between ideas and across texts" [22, para. 5). To that end, questions remain regarding the degree of literacy students have and the extent to which disparities exist by economic status.

The Texas Education Agency has created three levels of performance: Level 1: Unsatisfactory Academic Performance, Level 2: Satisfactory Academic Performance, and Level 3: Advanced Academic Performance [20]. As the STAAR exam was new, the Texas Education Agency gradually increased the performance standard (i.e., Phase-in 1, Phase-in 2, Final Satisfactory). To ensure score validities and score reliabilities, the Texas Technical Advisory Committee conducted numerous studies. External studies were compared to the SAT and ACT as well as vertical scale studies that allowed a comparison of student performance across grades within a content area [20]. Readers are directed to the Texas Education Agency website for further information regarding score validities and score reliabilities for the STAAR Reading assessments.

3. Results

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

3.1 Research Question One Results

Concerning the Level II Phase-in 1 Satisfactory Performance Standard of English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 473.12$, $p < .001$. The effect size, Cramer's V, was below small, .07 [23]. As revealed in Table 1, English Language Learner girls had statistically significantly higher passing rates, 6.5% higher, than English Language Learner boys.

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

School Year and Gender	Met Standard		Did Not Meet Standard	
	n	%	*n*	%
2012-2013				
Boys	32,766	64.2%	18,291	35.8%
Girls	33,779	70.7%	14,020	29.3%
2013-2014				
Boys	32,722	61.9%	20,148	38.1%
Girls	33,364	68.4%	15,401	31.6%

Continued

Table 1. Continued

2014-2015				
Boys	33,479	61.8%	20,705	38.2%
Girls	34,811	69.4%	36,039	30.6%

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

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

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(1) = 475.10$, $p < .001$, and yielded an effect size, Cramer's V, that was below small, .09 [23]. Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard, 6.5% higher, than English Language Learner boys. Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 671.08$, $p < .001$, Cramer's V of .08, a below small effect size [23]. Similar to the previous two school years, English Language Learner girls had the highest percentage who met this Phase-in standard, 7.6% higher, than English Language Learner boys. Delineated in Table 1 are the descriptive statistics for this school year. Concerning the Level II Phase-in 2 Satisfactory Performance Standard for English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 343.10$, $p < .001$. The effect size, Cramer's V, was below small, .06 [23]. As revealed in Table 2, English Language Learner girls had the highest met standard, 5.8% higher, than the English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard.

With respect to the 2013-2014 school year, a statistically significant difference was revealed, $\chi^2(1) = 370.81$, $p < .001$, and yielded an effect size, Cramer's V, .06, that was below small [23]. Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard, 6.0% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 578.66$, $p < .001$. The effect size, Cramer's V, was below small, .08 [23]. Similar to the previous two school years, English Language Learner girls had the highest percentage who met this standard, 7.4% higher, than English Language Learner boys. Table 2 contains the descriptive statistics for this school year. Concerning the Level II Final Satisfactory Performance Standard for English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 316.14$, $p < .001$. The effect

size, Cramer's V, was below small, .05 [23]. As presented in Table 3, English Language Learner girls had the highest met standard rates, 4.5% higher, on this Phase-in standard than English Language Learner boys.

With respect to the 2013-2014 school year, a statistically significant difference was revealed, $\chi^2(1) = 262.43$, $p < .001$, and yielded an effect size, Cramer's V, .05, that was below small [23]. Similar to the 2012-2013 school year, English Language Learner girls had the highest met standard achievement, 4.5% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Regarding the 2014-2015 school year, the result was statistically significant, $\chi^2(1) = 316.14$, $p < .001$, Cramer's V of .10, a small effect size [23]. Similar to the previous school years, English Language Learner girls again had the highest met standard achievement, 2.3% higher, than English Language Learner boys on the Phase-in 2 Satisfactory Performance Standard. Delineated in Table 3 are the descriptive statistics for this school year.

3.2 Research Question Two Results

Concerning the Level III Advanced Academic Performance of English Language Learner boys and girls, the result for the 2012-2013 school year was statistically significant, $\chi^2(1) = 152.49$, $p < .001$. The effect size, Cramer's V, was below small, .04 [23]. As presented in Table 4, English Language Learner girls had the highest met standard rates on this performance standard, 2.5% higher, than English Language Learner boys.

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

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

Table 4. Frequencies and Percentages for the Grade 3 Reading Level III Advanced Academic Performance Standard of English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years.

School Year and Gender	Met Standard		Did Not Meet Standard	
	n	%	*n*	%
2012-2013				
Boys	5,059	9.8%	46,427	90.2%
Girls	5,897	12.3%	42,132	87.7%

Continued

Table 4. Continued

2013-2014				
Boys	4,610	8.6%	48,693	91.4%
Girls	5,590	11.4%	43,409	88.6%
2014-2015				
Boys	5,633	10.3%	49,051	89.7%
Girls	6,727	13.3%	43,675	86.7%

With respect to the 2013-2014 school year, the result was statistically significant, $\chi^2(1)= 216.61$, $p < .001$, and yielded an effect size, Cramer's V, .05, that was below small [23]. Similar to the 2012-2013 school year, English Language Learner girls had the highest passing rates, 2.8% higher, than English Language Learner boys on the Level III Advanced Academic Performance standard. Regarding the 2014-2015 school year, a statistically significant difference was yielded, $\chi^2(1) = 234.43$, $p < .001$. The effect size, Cramer's V, .05, was below small [23]. Similar to the previous two school years, English Language Learner girls had the highest percentage who met this performance standard, 3.0% higher, than English Language Learner boys. Table 4 contains the descriptive statistics for this school year.

3.3 Research Question Three Overall Results

Prior to conducting a multivariate analysis of variance (MANOVA) statistical procedure to answer the third research question, its underlying assumptions were checked. Specifically data normality, Box's Test of Equality of Covariance, and Levene's Test of Equality of Error Variances were examined. Although the assumptions for the MANOVA procedure were not all met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study. For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98$, $p < .001$, partial $\eta^2 = .02$, in overall reading performance as a function of gender. Using [23]'s (1998) criteria, the effect size was small. With respect to the 2013-2014 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = .98$, $p < .001$, partial $\eta^2 = .02$, in overall reading performance as a function of gender. Using [23]'s (1988) criteria, the effect size was small. Similarly for the 2014-2015 school year, the MANOVA revealed a statistically significant overall difference, Wilks' $\Lambda = .99$, $p < .001$, partial $\eta^2 = .01$, in reading performance as a function of gender. Using[23]'s (1988) criteria, the effect size was small. Because the MANOVAs for each school year revealed the presence of statistically significant differences in aggregated reading performance by student gender, univariate follow-up analysis of variance (ANOVA) procedures were calculated on each of the three STAAR Reading Reporting categories.

3.4 Research Question Three Reading Reporting: Category 1 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 161.01$, $p < .001$, $\eta^2 = .002$, a trivial effect size [23]. As revealed in Table 5, English Language Learner girls had an average raw score that was 0.13 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 1.

Table 5. Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 1 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

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

Table 6. Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category 2 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

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

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 1 raw scores between English Language Learner boys and girls, $F(1, 101633) = 105.36$, $p < .001$, $\eta^2 = .001$, a trivial effect size[23]. English Language Learner girls had an average raw score that was 0.10 points higher than the average raw score of English Language Learner boys. Delineated in Table 5 are the descriptive statistics for this analysis. With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 1 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 193.56$, $p < .001$, $\eta^2 = .002$, a trivial effect size [23]. As revealed in Table 5, English Language Learners girls had an average raw score that was 0.14 points higher than the average raw score of English Language Learner boys.

3.5 Research Question Four Reading Reporting Category 2 Results

For the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 1325.51$, $p < .001$, $\eta^2 = .01$, a small effect size [23]. As presented in Table 6, English Language Learner girls had an

average raw score that was 0.87 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 2.

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 2 raw scores between English Language Learner boys and girls, $F(1, 101633) = 1499.23$, $p < .001$, $\eta^2 = .02$, small effect size [23]. English Language Learner girls had an average raw score that was 0.93 points higher than the average raw score of English Language Learner boys. Delineated in Table 6 are the descriptive statistics for this analysis. With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 2 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 1073.13$, $p < .001$, $\eta^2 = .01$, a small effect size [23]. English Language Learner girls had an average raw score that was 0.80 points higher than the average raw score of English Language Learner boys. Descriptive statistics for this analysis are delineated in Table 6.

3.6 Research Question Five Reading Reporting Category 3 Results

Regarding the 2012-2013 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 98854) = 206.44$, $p < .001$, $\eta^2 = .002$, a trivial effect size [23]. English Language Learner girls had an average raw score that was 0.31 points higher than the average raw score of English Language Learner boys on the Grade 3 STAAR Reading Reporting Category 3. Table 7 contains the descriptive statistics for this analysis.

Concerning the 2013-2014 school year, a statistically significant difference was yielded on the STAAR Reading Reporting Category 3 raw scores between English Language Learner boys and girls, $F(1, 101633) = 238.30$, $p < .001$, $\eta^2 = .002$, a trivial effect size [23]. English Language Learner girls had an average raw score that was 0.33 points higher than the average raw score of English Language Learner boys. Presented in Table 7 are the descriptive statistics for this analysis. With respect to the 2014-2015 school year, Grade 3 STAAR Reading Reporting Category 3 raw scores were statistically significantly different between English Language Learner boys and girls, $F(1, 105084) = 529.84$, $p < .001$, $\eta^2 = .01$, a small effect size [23]. English Language Learner girls had an average raw score that was 0.48 points higher than the average raw score of English Language Learner boys. Table 7 contains the descriptive statistics for this analysis.

Table 7. Descriptive Statistics for the STAAR Reading Grade 3 Reporting Category3 Scores for English Language Learner Boys and Girls in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Gender	*n*	*M*	*SD*
2012-2013			
Boys	51,057	9.12	3.42
Girls	47,799	9.43	3.33
2013-2014			
Boys	52,870	8.84	3.38
Girls	48,765	9.17	3.32

Continued

Table 7. Continued

2014-2015			
Boys	54,684	9.19	3.47
Girls	50,402	9.67	3.34

3.7 Research Question Six Trend over Time Reading Level II Results

In all three school years, English Language Learner girls had statistically significantly higher met standard performance on the Phase-in 1 standard than English Language Learner boys. The reading gap in the percentages who met this performance standard varied slightly between years, with the largest gap, 7.6%, in the 2014-2015 school year. The average met percentage gap between English Language Learner girls and boys during these three school years was 6.9%. For the Phase-in 2 Academic Performance standard in all three school years, English Language Learner girls had higher percentages who met this standard than English Language Learner boys. The average percentage gap on this standard was 6.4%. The gap in the percentages who met this standard varied slightly each year, with the largest gap, 7.4%, in the 2014-2015 school year. The smallest gap in the percentages, 5.8%, was in the 2012-2013 school year. The Final Satisfactory achievement standard had the smallest gap in the percentages of English Language Learner girls and boys who met this standard. English Language Learner girls had a higher percentage who met this standard, 3.8%, than English Language Learner boys. The percentage gap varied slightly, with the smallest gap, 2.3%, between English Language Learner girls and boys in the 2014-2015 school year.

3.8 Research Question Seven Trend over Time STAAR Reading Reporting Categories

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

4. Discussion

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

to around 2,750 more English Language Learner girls meeting Level III standard and 6,010 English Language Learner girls reaching the met standard rates each year.

4.1 Connections with Existing Literature

Historically, girls have outperform boys in reading [12, 15]. With the additional analysis of English Language Learners, the results from this empirical study were aligned with previous researchers [12, 15, 17] who established that girls outscore boys on assessments in the area of reading. This difference in performance can be attributed to the fact that girls in general demonstrate higher scores at earlier grades [5], placing them at an advantage in reading at the early years. Though the achievement gap was small, it is still a concern for educators to ensure an equitable outcome for all students in all subjects.

4.2 Implications for Policy and for Practice

Several implications for policy and for practice can be made based upon the results of this investigation. First, additional resources (e.g., student manipulatives and experiential learning) in the classroom can be used to provide hands-on learning for English Language Learners to increase their English proficiency and their academic achievement. Second, a Literacy coach could be utilized for campuses to aide in the strengthening of students reading ability. This coach could provide additional supports to English Language Learners who are behind their peers and provide 1-1 instruction. Third, school districts could provide ongoing professional development for new and veteran teachers on research based and student focused practices. Fourth, English Language Learners could be assessed in ways other than standardized tests that might provide a different measurement of their knowledge. [24] suggested the linguistic complexity of standardized tests such as the STAAR may be partly responsible for the performance gaps between English Language Learners and their peers. Because additional supports are needed, further collaborative efforts among federal, state, and local educational authorities to close the achievement gap are needed.

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

4.3 Recommendations for Future Research

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

encouraged to examine academic achievement in other areas such as mathematics, science, social studies, and writing. The extent to which the gaps documented herein in reading are present in other academic areas is not known.

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

5. Conclusion

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

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