The Longitudinal Influence of Language of Testing on Reading Assessments for

English Learners

by
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Abstract

Background: The demographic fabric of inner-city schools has drastically changed in the last decades. The Hispanic, Spanish speaking student population is the fastest-growing demographic of students across the country. Hispanic students represent the largest portion of student population in Texas, accounting for 52.4% of all students. Considerable empirical evidence shows that students identified as economically disadvantaged, Hispanic, and English Learners (ELs) struggle in reading and trail behind in reading performance throughout their schooling. Given this demographic shift and the continued struggles to meet standards in reading for many ELs, it is important to examine how language of assessment and language proficiency may influence reading performance. **Purpose**: The following three research questions were examined: (a) Is there a statistical difference in performance among third-grade bilingual students who took the State of Texas Assessments of Academic Readiness (STAAR) reading test in Spanish versus those who took it in English? (b) Is there a difference in STAAR reading performance in Grades 5 and 8 for students who took Grade 3 STAAR in English versus Spanish?; (c) How does language proficiency and reading performance in Grade 3 predict reading performance on high stake assessments (STAAR) in Grade 5 and Grade 8? **Methods:** The quantitative study utilized archival student data from an urban school district located in Houston, Texas. Data were collected for students identified as, Hispanic, Spanish-speaking ELs, served under a bilingual program in Title 1 schools who were, continuously enrolled from kindergarten to Grade 3. Outcome data were STAAR scores for Grades 3, 5, and 8 were included. A *t*-test was conducted to determine whether statistical differences existed between Grade 3 STAAR scores for students who completed the test in

Spanish versus English. ANOVA was used to examine potential difference between these two groups in STAAR performance in Grade 5 and 8. Additionally, multiple regressions examined the influence of language proficiency and reading achievement in Grade 3, on STAAR reading performance in Grade 5 and Grade 8. **Results**: For RQ1, the *t-test* revealed a statistically significant difference ($p<.01$; *ES*$=.23$) between group on Grade 3 STAAR reading performance, in favor of the group who completed the assessment in English. The ANOVA for RQ2 showed that group testing in English continued to outperform the group testing Spanish in Grades 5 ($p < .001$; *ES* $= .97$) and 8 ($p < .001$; *ES* $= .67$). For RQ3, language proficiency evaluated by the Texas English Language Proficiency Assessment System (TELPAS) and reading performance STAAR in Grade 3 were strong and significant predictor of STAAR reading performance for both Grade 5 and 8. **Conclusion:** Students Grade 3 language and reading proficiency were key predictors of future reading achievement. The development of strong literacy and language skills in Grade 3 in both languages appears to translate to stronger reading achievement in upper elementary and middle grades. These findings support the connection that literacy and language development in the student first language (Spanish) impacts literacy and language development in the student's second language (English). Further research is needed to evaluate ELs served in different language learning programs and analyzing the effectiveness of transitional bilingual programs. This research underscored the importance of reading programs in lower grades that enforce the literacy and language skills in both languages.

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Chapter I

Introduction

Reading has a quintessential role in a child's life. It is a skill that affects almost every aspect of a child's life. Reading is more than putting sounds and letters together; it is the ability to comprehend and analyze the text. These skills are fundamental to every subject and navigating life from something as simple as understanding written instructions in a recipe to interpret a complex historical journal. There is considerable empirical evidence that emphasizes the essential role reading has in student's life, and it is vital to prevent reading difficulties as they impact not only the student but also the society.

Reading is the cornerstone of success in a child's academic life. Young readers that struggle to read at the end of the first grade will continue to struggle in their academic journey. Juel's seminal work reports students who read below grade level at the end of the first grade to have a strong chance to be behind in the fourth grade (Juel, 1988). Reading struggles among elementary school children become a vicious cycle; good readers continue to be good readers, and poor readers continue to struggle (Juel, 1988). Reading challenges not only influence student's academic performance, but also functions a critical indicator of the child's future success in life (Foorman et al., 1998).

Reading frustration can impact students' learning, confidence, and behavior in class. Children who struggle in reading show increased behavioral problems, and they have an increased risk for special education placement (Snow et al., 1998). Research shows that children who struggle in reading in lower grades have an increased chance to repeat a grade, are less likely to get high school diploma, more likely to become teen

parents, earn less, and enter the juvenile justice system (Connor et al.,2014). Reading

difficulties can lead to severe and potentially lifelong challenges, and it affects the society

in many ways. Additionally, poor reading skills significantly impact the nation's economy

because students who struggle in reading in lower grades; are at increased likelihood of

being employed in low-paying jobs as adults (Chhabra & McCardle, 2004). Ultimately, it

affects the future of the students and the economic future of our society. Therefore, it is

imperative to prevent reading difficulties in young students because of potential long-

term disadvantages in students' lives and as well as the nation's future.

Reading challenges tend to be more profound in students from low socioeconomic

status and minority backgrounds in inner-city elementary schools. Juel (1988) asserts that

poor reading and writing skills do not improve as the students move to upper grades,

especially in students identified as low socioeconomic status, African American or of

Hispanic ethnicity. Considerable empirical evidence shows that students identified as

economically disadvantaged, Hispanic, and English Learners (ELs) struggle in reading

and trail behind in reading performance throughout their schooling (Hakuta, &

Gould,1987; KewalRamani et al., 2007; Young et al., 2012). It is critical for schools to

analyze factors and prevent reading difficulties among economically disadvantaged,

Hispanic, and English Language Learners. The Hispanic Spanish-speaking student

population is the fastest-growing demographic in the student population across the

country (National Center for Education Statistics, 2019).

The Problem of Practice

In the last decades, the demographic fabric of inner schools has radically changed.

This study examines a district in northeast Houston. The district has a considerable

number of Hispanic, Spanish-speaking, EL students. The school district demographics have drastically changed in the last 40 years from a suburban district to an urban school district, and from a district with a majority of White students to a district serving mostly minority belonging to ethnic or racial minorities (Juarez, 2013). The figure shows the historical demographic changes in this school district between 1978 and 2019.

Figure 1

Demographic Changes

	Anglo /White	African American	Hispanic
2019	2.40%	22.70%	72.70%
1978	72%	15%	13%
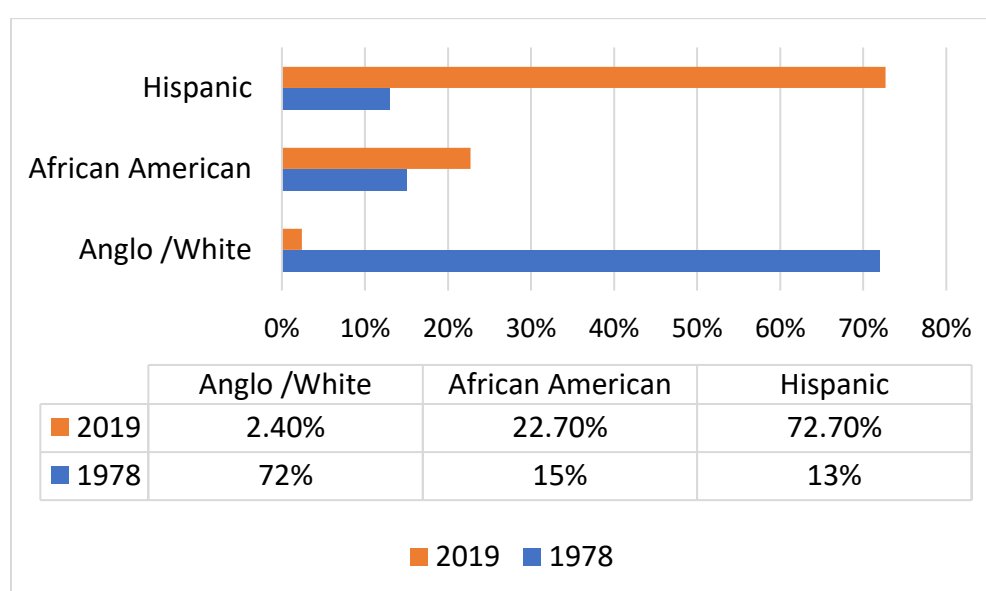
Note. The drastic demographic changes this district has experienced in the last four decades. It is worth noting that the in-census data of the time, the Hispanic population is identified as being of Mexican American heritage. Anglo=Anglo American

This urban district reflects the national trends in terms of changes in students' demographics. According to 2016 *Status and Trends in the Education of Racial and Ethnic Groups*, report by the National Center for Education Statistics (NCES), the national demographic fabric is changing not only in urban districts but also nationwide. The same report highlights a significant decrease in White students during the last few

decades in urban school districts. The same report indicates that Hispanic students are the fastest-growing student population nationwide. KewalRamani et al. (2017) and Young et al. (2012) highlight the substantial achievement gap in reading between Hispanic, inner school students in comparison to white students. The academic achievement gaps have become pervasive in inner-city schools.

These endemic disparities in reading performance are more profound among ELs and Hispanic students. The National Assessment of Educational Progress (NAEP) measures U.S student performance in core subjects and it highlights student's performance among different student subgroups. In 2019, there was a 21 points difference in scaled score performance in Grade 4 reading between Hispanic and White students. Only 10% of ELs in Grade 4 scored at or above NAEP proficient level in comparison with 39% of the not English Learners in Grade 4 scored at or above the NAEP proficient level. The data in reading performance for ELs students in eight-grade is alarming; only 4% of ELs scored at or above the NAEP proficient level in comparison with 36% of non-English learners (NCES, 2019).

Texas's inner-city schools have experienced a profound demographic change in the few last decades. Hispanic students have become the largest student population in the state of Texas. The annual report of enrollment in Texas public schools, (Texas Educational Agency [(TEA)], for 2018-2019) indicates the population of Hispanic students rose from 46.3% to 52.4% (6.1 percentage points) in Texas and from 20.5% to 26.4% (5.9 percentage points) nationwide. In the same report, Hispanic students accounted for the largest percentage of total enrollment in Texas public schools in 2018-19 (52.6%), followed by White (27.4%), African American (12.6%), Asian American

(4.5%), and multiracial (2.4%) students. Additionally, the percentage of students identified as English learners grew from 16.9%in 2008-09 to 19.4%in 2018-19. During 2018-19, English as a Second Language ESL/pull-out programs (32.9%) and transitional bilingual/early exit programs (17.7%) were the most common special language program instructional models EL employed to serve ELs receiving bilingual or ESL services.

Given this demographic shift, the problem of practice to be examined is the fact that many Hispanic, Spanish-speaking, ELs are struggling to meet state requirements in reading performance tests in lower grades (Fitzgerald, 1995; KewalRamani et al., 2017; Young et al., 2012). The endemic low reading performance among Hispanic, Spanish speaking, ELs enrolled in bilingual programs is at the heart of the bilingual education debate. Bilingual education has endured many policies, and philosophical changes. It has been at the center of many academic debates on its role addressing bilingual students' educational needs.

There is substantial empirical evidence that points out the benefits of bilingual education. A synthesis of research (Hakuta & Gould, 1987; Rolstad et al., 2005) on bilingual education underscores that bilingualism is a cognitive asset, and bilingual instructional approaches are effective in addressing language learner's academic achievement and preserving the learner's linguistic and cultural identity. Despite the strong empirical evidence, bilingual education is often used as a scapegoat for low reading performance. Many other variables are undermining the success of bilingual education, such as poverty, inconsistency in bilingual education policies, and implementation (Krashen & Cummins, 2000). Given the demographic shift and low reading performance among bilingual, Spanish speaking students, this study aims to

examine the effects of bilingual policies; specifically, the role of language of testing has in reading performance among bilingual, Spanish speaking students.

The heart of bilingual education is enforcing native language and, simultaneously helping English learners acquire the necessary skills in English. The term *Bilingual education* is an umbrella term encompassing of a variety of educational models and programs. Kennedy (2019) as well Moughamian et al. (2009) highlight two main types of bilingual education: transitional bilingual education (TBE) and dual language immersion (DLI). The purpose of TBE is to help students transition from their native language to English. The ELs learn grade-level skills in their native language at the same time acquiring English to facilitate the transition from the native language to English (Kennedy, 2019; Moughamian et al., 2009). There are two main approaches within TBE: early exit, and late exit. In the early bilingual education exit program, the students receive 2 years of instruction in their native language and in the late-exit program; students receive up to six years of instructions in their native language (Kennedy, 2019).

The DLI aims to develop students simultaneously language skills in a native language and English (Kennedy, 2019). The DLI programs are used in two different ways. The first approach is to learn the native language and English simultaneously. In other words, students need to have the same exposure in their native language and English. The other approach is to immerse native English speakers in another language as a way to learn a second language (Moughamian et al., 2009).

Chapter 39 and 101 of the Texas Education Code (TEC), Assessments, Subchapter CC. Commissioner's Rules Concerning Implementation of the Academic Content Areas Testing Program highlights procedures for determining the language of

testing in the state test. The TEC requires schools to have Language Proficiency

Assessment Committees (LPACs) to make appropriate educational decisions for each

English earner (ELs). On each LPAC are school administrators, bilingual education

teachers, English as second language (ELS) teachers, core connect teachers, and parents.

The LPAC determines the language of testing in a standardized test based on several

factors, such as the predominant language of instruction, English language proficiency

levels, teacher feedback, and parent involvement in decision-making (TEA, 2019). Texas

English Language Proficiency Assessment System (TELPAS) measures the English

language proficiency progress of ELs in acquiring English. As an indicator of

proficiency, it measures four levels, or stages, of increasing English language

proficiency: beginning, intermediate, advanced, and advanced high (TEA, 2020). The

progress shown in TEPLAS helps the schools evaluate ELs' annual growth in learning to

listen, speak, read, and write in English. It also indicates the level of English proficiency

in context of grade-level instruction. The LPAC considers all factors, and in

collaboration, they make an educational decision about which language for testing will

offer the student the best academic outcome in the state standardized test.

  Bilingual education remains a popular program in the state of Texas. With the

constant increase of the bilingual, Spanish-speaking student population, and low reading

performance of this subgroup, it is critical to evaluate educational decisions impacting

this subgroup. The purpose of the study is to investigate the longitudinal influence of

language of testing on reading assessments for English Learners. The study examined

Hispanic, Spanish-speaking, ELs enrolled in a bilingual program and their performance

on the state reading assessment in third grade taken in their native language. Findings

were then compared with results of bilingual students who took the reading state assessment in English. Additionally, the intent was to examine how students performed later on state reading assessment, specifically, at the end of elementary school (Grade 5) and at the end of middle school (Grade 8) for Hispanic, ELs enrolled in a bilingual program who took the Grade 3 assessment in Spanish instead of English. In other words, can language proficiency in Grade 3 in English or Spanish be a predictor of later reading performance in Grade 5 and Grade 8? In other words, how was language performance variability in TELPAS Grade 3 and the reading State of Texas Assessments of Academic Readiness STAAR performance in the same grade can help educators predict struggling students in reading and creating action plans to meets the student's literacy needs.

Impact of the Work

This study strove create and raise awareness about the critical role that good reading instruction plays in academic lives of ELs. Good reading skills have a profound impact on every subject. The foundation of good English skills in elementary school for ELs has a direct impact on future academic success for ELs. Given the considerable empirical evidence on the importance of good reading instruction, it is mandatory that schools help ELs to close the reading achievement gap; specifically, by addressing the low reading performance among Hispanic, Spanish-speaking, ELs. The academic literature reports that the longitudinal impact of bilingual programs in inner-city schools, and it especially sees that language the student is tested on as negligible.

School districts need to evaluate what the longitudinal impact on higher grades of the language of instruction and testing in lower grades and what affect early instruction and testing has on future reading success among bilingual students. Ideally, the outcome

of the study will inform the district about the longitudinal impact that the language of instruction and testing and has on future reading success. The study will assist the district in solving problems of practice by using applied research evidence and establishing a strong bridge between research and practice.

This study investigated the degree of language proficiency and performance in standardized assessments, and how they had an impact students' future reading success. Preferably, in the future the district will consider the results of this study in making decisions about the language of instruction, language proficiency, and testing and how these factors may impact future reading success for Hispanic, Spanish-speaking, ELs.

Historical Evolution of Bilingual Education

Bilingual education has its start in the early 19th century, where European immigrant communities across the country had schools that taught students language other than English. These communities were spread across the United States and included Dutch and German communities in Pennsylvania, French communities in Louisiana, and Spanish, and German communities in Texas (Blanton, 2005; Bybee, Henderson & Hinojosa, 2014). Specifically, in Texas, bilingual education has a rich history among various ethnic communities such as communities of Czech, German, and Mexican heritage, where schools taught a native language and English (Blanton, 2005). Despite the early tradition in bilingual education, bilingual education has faced many pedagogical and legal battles.

In the early to mid-20th century, the pedagogical approach to English-only instruction was legally supported by Texas law (Bybee et al., 2014; Ovando, 2003). The intention of the only English pedagogical approach was deeply discriminatory toward the

Mexican American, Spanish-speaking children and lead to segregation of Spanish speaking students. Several legal cases challenged the constitutional legality of the English-only pedagogy and Texas laws to have English only instruction in private and public schools (Ovando, 2013).

The Civil Rights Movement in the mid-twentieth century reshaped society, reformed educational laws, and policies revolutionized the legislative fabric of the United States. The changes in antidiscrimination laws, the desegregation in public settings, and new educational rights, and equal employment rights not only transformed and reshaped public education but also helped reform bilingual education. The monumental landmark case of *Brown v. Board of Education of Topeka* (1954), which ended segregation in public schools, serves as the cornerstone case in the educational laws. The Supreme Court unanimously declared that the concept of separate but equal was unconstitutional and in direct violation of the Fourteenth Amendment (Overton, 2014). The Brown v. Board of Education of Topeka decision played a foundational role for future supreme court cases and legislation in education. Not only was the nation reshaping its values and the legislative fabric of the country, but also raising more awareness of and acceptance for individual rights for equal education opportunity among all students.

The changes in the legislation in the mid-twentieth century led to many Supreme Court cases about the educational rights of Spanish-speaking students. In the landmark case *Lau v. Nichols* (1974), the Supreme Court established that the lack of supplemental language instruction in public schools for students with limited English proficiency violated the Civil Rights Act of 1964. In addition to it established that "equal treatment" does not mean "equal opportunity" (Blanton, 2005; Ovando, 2003). In other word by

merely placing ELs in a regular classroom does not mean their educational needs are met. Another significant case that shaped the educational quality for language learning students was *Castañeda v. Pickard* (1981). This case highlighted that bilingual education programs needed to rely on "sound education theory' and programs needed to have effective resources for personnel, instructional material, and space (Ovando, 2003).

The most significant cases relating to bilingual education were *The United States v. Texas* (1971, 1981) whereby the Supreme Court mandated that TEA create and offer specific curriculum programs that will ensure equal educational opportunities for all Texas students. Specifically, in the 1981 case the court underscored the need for TEA to have specific educational programs for minority children whose language was other than English (the United States v. the State of Texas,1981).

The societal changes and the transforming legislature of the mid-20 century led to many educational reforms, such as the passage of the Bilingual Education Act (Title VII of the Elementary and Secondary Education) (Blanton, 2005; Bybee, et., al 2014). The Bilingual Education Acts serves as the legislative cornerstone for funding and development of bilingual education programs.

National Context

In 2001, the No Child Left Behind Act (NCLB) aimed to ensure the educational success of all students. The NCLB Act intended to address the problem of low performance in reading as well as disparities in reading performance between ethnic and socioeconomic subgroups. Furthermore, it encouraged schools to implement evidence-based reading approaches (NCLB, 2001). The passage of the NCLB act marked the end of the Bilingual Education Act (BEA). The genesis of a new chapter for bilingual

education, the BEA was replaced by the English Language Acquisition, Language

Enhancement, and Academic Achievement Act under Title III of the NCLB Act.

    The NCLB Act contributed to creating measurable language learning standards

for ELs. At the same time, it marked a new era in accountability and high-stakes testing.

Schools needed to ensure the academic success of all students and show progress in

academic performance in standardized testing. Specifically, language learners and

emergent bilingual students needed to show ongoing progress in English Language

proficiency assessment and academic content assessment (Menken, 2013).

    The Every Student Succeeds Act (ESSA, 2015) replaced the NCLB Act, though it

emphasized themes similar to those of NCLB. ESSA highlights the importance of quality

reading instruction and the need to address the disparities in reading performance among

minority subgroups. One of the main differences from NCLB is that ESSA emphasizes

the role of states in solving problems in a school's performance more. The states need to

develop plans to address reading assessments and disparities in learning achievement in

minority subgroups, specifically among Hispanic, English Learners. ESSA highlights the

importance of using evidence-based programs that ensure high-quality, comprehensive

literacy instruction (Dennis, 2016).

    The national picture in reading performance in lower grades presents alarming

data regarding both performance and disparities between ethnic subgroups. The NAEP

measures the progress of our nation's students in fourth and eighth grade in reading,

mathematics, and several other subjects. Only 35 % of fourth–grade students and 34% of

eight grade students in the United States scored on the proficient levels or above

proficient om reading according to NAEP test given in 2019 (NCES, 2019).

Over the years, there has been minimal progress when it comes to reading scores among fourth and eighth grades. In 2019, the average reading score for both fourth and eighth graders was significantly lower than the 2017 performance score (NCES, 2019). Although, there has been a positive trend in reading scores among minority students since 1992. The data from NAEP shows there is a considerable achievement gap in reading performance among African Americans and Hispanic students. In 2019, there was a 21 points difference in scaled score performance in Grade 4 reading between Hispanic and White students. Specifically, reading progress among Hispanics in fourth graders has remained stagnant; there were no significant changes in reading scores from 2017 to 2019.

The same trends are present in eighth grade, as there was a 20-point difference between scores Hispanic students and those White students. NAEP results (NCES, 2019) highlight a downward trend in reading performance among eighth-grade Hispanic students from 2017 to 2019. The reading performance among ELs has trended positive in comparison with performance in early 2000 among both fourth and eighth-grade students. However, there is still a substantial achievement gap between ELs and the general population. The NAEP 2019 report indicates the ELs are trailing behind in reading assessment. Specifically, only 10% of ELs in fourth grade scored at or above the NAEP proficient level whereas 39% fourth graders who were not English language learners in fourth grade scored at or above the NAEP proficient level. The data in reading performance for EL students in eight-grade is alarming; only 4% of ELs scored at or above the NAEP proficient level in comparison with 36% of students who were not English learners (NCES, 2019). NAEP data shows that disparities in academic

achievement continue to exist in reading scores among different subgroups, and the disparities have become pervasive in all subjects.

State and Regional Context

Data for Texas students demonstrate the same disturbing trends as the national report with regards to achievement gaps between racial and ethnic minority and White students. Texas students in fourth and eighth grade exhibit lower average scores in reading among and the significant achievement gap in reading performance between minority subgroups. The NAEP 2019 report shows that the average reading score of fourth grade and eight students in Texas was lower than the national average (NAEP 2019). Specifically, Hispanic students performed 17 points lower than white students. As noted, Texas has considerably higher number of ELs in comparison with other states. *According to the Condition of Education* 2019, Texas reported that 17.2% of enrolled students in elementary schools are ELs.

The Federal Report Card for Texas Public Schools (2018) from TEA indicates that the majority of students in the district used in the study are minority, with 23.8% African American and 72 % as Hispanic, 86.2 % economically disadvantaged. One third of district students are EL students (33%), representing about twice the average in Texas with (16.8%) and more than three times the average (9.5 %) in United Sates. This number is considerably higher in this district's elementary schools, and a large portion of Hispanic, Spanish speaking, EL students enroll in the bilingual programs offered in elementary schools.

The students' scores in this district were lower than the state average for reading tests for all grades, for ethnic groups and racial groups. This study will focus on the

reading performance of Hispanic, bilingual students. The *Texas Academic Performance Report*, 2018-19 District STAAR Performance, indicates that Hispanic students in third grade scored nine points lower than their peers in the region and the state. The same trends are evident among fifth and eighth-grade students. The fifth-grade Hispanic students trailed 10 points behind in comparison with the same their region and state. The eight graders Hispanic students trailed four points behind in comparison with the same peer in the region and state. The same report indicates that third grade ELs trail behind ten scaled points their peers in the region and the state. Scores for fifth grade ELs are six points lower and for eighth-grade performance is 23 scaled score points below their peers in the region and the state (TEA,2019).

Title III, Part A of the Elementary and Secondary Education Act (ESEA), which was reauthorized by 34 CFR §200.6 of the Every Student Succeeds Act (ESSA) highlights the requirements state and local educational agencies must ensure the educational rights of English language students and close the achievement gaps between ethnic and racial minority and White students. Also, it requires school districts to create specific educational plans for ELs. The district improvement plan for 2018- 2019 highlights as of its main goals is to ensure an equitable education for all its students. Due to a significant number of Hispanic, ELs, the district has devoted a considerable part of the improvement plan to improve the educational outcomes of its ELs student population.

Research Questions

The specific aim of this research was to examine the longitudinal influence of the language of testing in Grade 3 for Hispanic, Spanish-speaking ELs enrolled in a bilingual program has on future standardized testing outcomes, particularly at the end of

elementary school and end of middle school. In addition to, this study examined the

degree in which variability in language performance in TELPAS in Grade 3 along with

reading STAAR performance in the same grade can be predictors in standardized reading

assessment performance in Grade 5 and Grade 8. The following RQ were addressed.

1. Is there a statistical difference in performance among third-grade bilingual students

   who took the State of Texas Assessments of Academic Readiness (STAAR)

   reading test in Spanish versus those who took it in English?

2. Is there a difference in STAAR reading performance in Grades 5 and 8 for students

   who took Grade 3 STAAR in English versus Spanish?

3. How does language proficiency and reading performance in Grade 3 predict

   reading performance on high stake assessments (STAAR) in Grade 5 and Grade 8?

Variables

The primary variables for this study will be the bilingual education program, the

language of instruction, the language of testing, and language proficiency levels. The

dependent variable is the outcome from the State of Texas Assessments of Academic

Readiness (STAAR) in Grade 3, Grade 5, and Grade 8. The STAAR test is a

standardized test used in Texas public schools to measure student performance in the core

subjects. The independent variable is the language of instruction and testing in third

grade. Chapter 39 and Chapter 101, (Assessments, Subchapter CC. Commissioner's Rules

Concerning Implementation of the Academic Content Areas Testing Program) of the

Texas Education Code (TEC) highlights procedures for determining the language of

testing in the state test. As previously noted, the LPAC determines the language of testing

in a standardized test based on several factors, such as the predominant language of

instruction, English language proficiency levels, teacher feedback, and parent

involvement (TEA, 2019). The proficiency levels in TELPAS, play a role in decision

making when determining the language of testing in STAAR. The LPAC considers all

factors, and in collaboration, they make an educational decision in what language the

student will have the best academic outcome in the state standardized

Chapter II

Review of Literature

Reading is fundamental skill directly related to a student's school and life success. It is vital to prevent reading difficulties in young children, especially in children who belong to ethic and racial minorities. The Hispanic/Latino student population is the fastest-growing student demographics in public schools nationwide (NCES, 2016). The number of students speaking Spanish in bilingual or English as second language (ESL) programs have significantly increased in the last decades. In fall 2016, there were about 3.82 million Hispanic students identified as ELs, constituting 77.2% of EL student enrollment overall (Condition of Education, 2019).

The Hispanic student population in Texas is the largest student's demographic enrolled in public schools in 2019. This subgroup constitutes of 52.6% of all student populations. Of this group, 1,066,099 or 19.7% are enrolled in bilingual or ESL programs (Texas Academic Performance Report, 2019). Given this large and growing student population and the fact that Texas inner-city schools districts are grappling with low reading performance among Hispanic, Spanish-speaking ELs, it is critical to evaluate reading program approaches and how they influence future reading scores in standardized test scores.

In the current study, the longitudinal influence of the language of testing on reading state assessment performance for Hispanic, Spanish-speaking ELs will be examined. Chapter II focuses on four themes: (a) history of bilingual education in the United States and Texas; (b) theoretical approaches to bilingual education; (c) reading performance of bilingual students and factors that contribute in the language of

instructions and testing for bilingual students; and (d) legislative regulations for bilingual education and testing in Texas.

History of Bilingual Education in the United States and Texas

The United States has a rich and deep history in bilingual education. From the early days as a nation, there were immigrant groups that wanted to keep their language and traditions alive. The 19th century marked the genesis of bilingual education in the United States, where European immigrant communities had schools that taught the students in their native language. The historical records show that bilingual schools were spread across the United States. There was a diversity of languages being taught including Dutch and German in Pennsylvania, French in Louisiana and German, and Spanish, and Czech in Texas (Blanton, 2005; Bybee et al.,2014). European languages were viewed as more acceptable than Indigenous, Asian, and Spanish languages in Mexican American and minority communities (Bybee, at.al 2014). The *linguistic pluralism* refers to the idea of accepting the use of all languages and respecting the linguistics needs of all ethnic communities. The idea of linguistics pluralism during this period was marked by a deep discriminatory view toward minority groups

At the beginning of the 20th century, the ideology of an English-only approach emerged as a reaction towards the massive immigrant influx of non-English speakers from Europe. After the rise of nationalist feelings during World War I,and the United States consolidated a more dominant place in world affairs (Blanton, 2005; Bybee et al., 2014). The rise of English-only instruction as a critical part of the national identity occurred at the same time as the development of free and compulsory schooling in the United States (Blanton, 2005; Bybee et al., 2014). In 1923, many states mandated

English as the language of instruction in public schools and marked the genesis of English only pedagogical education (Ovando, 2003). The prominent role of the United States in global affairs after World War II and the need to have an influential advantage in the Cold War served as a primary driver for education reform.

The National Defense Education Act (1958) transformed the educational policies in science, mathematics, and foreign languages. Even though the National Defense Education Act aimed to improve the pedagogical approaches toward teaching other languages than English, it did not develop any educational policies toward students who spoke a language other than English (Ovando, 2003). Despite the rich history of different language education, bilingual education itself was not part of educational policies until 1968. There were many marking points during the mid-twentieth century that shaped bilingual education policy development.

The Civil Rights Movement in the mid-20th century reshaped society, reformed educational laws, and policies revolutionized the legislative fabric of the United States. The changes in antidiscrimination laws, desegregation in public settings, educational rights, and equal employment rights transformed and reshaped not only public education but also helped to reform bilingual education. The monumental landmark case of Brown v. Board of Education of Topeka (1954), which helped end segregation in public schools, served as the cornerstone case in education law. The Supreme Court unanimously declared that the concept of "separate but equal" was unconstitutional and violated the Fourteenth Amendment (Overton, 2014). The Brown v. Board of Education of Topeka decision played a foundational role for future Supreme Court cases and legislation in education. Not only the nation was reshaping its values and the

legislative fabric, but recognizing of all individual rights and raising awareness for the equal education opportunity among all the students.

The Cuban crisis in 1963 and 1964 and the influx of Cuban refugees in Miami, marked a turning point in bilingual education. The first bilingual school that provided both English and Spanish instruction to Cuban immigrants was founded in Miami, Florida. The creation of bilingual school programs that educated Cuban children in Spanish and English marked the rebirth of bilingual education (Blanton, 2004; Ovando, 2003). However, it assumed that the Cuban immigrants would be returning soon in Cuba. The school program in Dade County, Florida, served a foundational framework for upcoming legislation in bilingual education, especially in the reauthorization of the Bilingual Education Act (1974).

The changes in the legislation in the mid-twentieth century led to many Supreme Court cases about the educational right of English Learners. The *Lau v. Nichols* (1974) case was a class action suit representing Chinese students who alleged discrimination by the San Francisco Unified School District (SFUSD). The school district provided partial supplemental English classes to some of its non-English-speaking students. At the same time, the district failed to provide supplemental English classes for nearly 1,800 non-English speaking students of Chinese descent (*Lau v. Nichols*, 1974; Ovando, 2003). The case highlighted that the failure to provide supplemental ESL classes violated the Fourteenth Amendment and Section 601 of the Civil Rights Amendment, which protects individuals from discrimination based on race, color, or national origin in any federally funded program (*Lau v. Nichols*, 1974). In this landmark case, the Supreme Court unanimously decreed that the lack of

supplemental language instruction in public schools for students with limited English proficiency violated the Civil Rights Act of 1964. Also, it established that "equal treatment" does not mean "equal opportunity" (Blanton, 2005; Ovando, 2003). In other words, by merely placing students whose native and primary language was not English in a regular classroom did not mean their educational rights are met.

The Supreme Court stated that "there is not equality of treatment merely by providing students with the same facilities, textbooks, teachers and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education" (*Lau v. Nichols* ,414 U.S. at 556, 1974). This case highlighted the need to have guidelines and programs that address the educational needs of ELs. Even though *Lau v. Nichols* did not offer any specific educational remedies and policies for non-English speaking students, it served as the legislative cornerstone reference for the development of English learning programs and bilingual education (Ovando, 2003).

Another significant case that shaped educational quality for students learning English was *Castañeda v. Pickard* (1981). The lawsuit contended that the Raymondville, Independent School District (RISD) in Texas violated the civil right of English Learners specifically those of Mexican American descents. It violated the educational rights mandated under the Equal Education Opportunity Act of 1974 (Ovando, 2003). The Fifth Circuit Court of Appeals mandated that the school district consider a three-step action to evaluate and safeguarding the right educational programs for non-English-speaking students.

The case underscored that programs for language learners must: (a) be based on educational sound theory; (b) have the sufficient resources including personnel, instructional material, and space; and (c) evaluate their practices and results not only in terms of language outcomes but also in other content areas including math, language arts, science and social studies (Crawford, 1991; Ovando, 2003). This case highlighted that bilingual education programs need to rely on sound education theory-, in other words, the need to implement empirically validated educational frameworks (Crawford, 1991 p.47; Ovando, 2003). This case emphasized the need to have research-based and high-quality educational programs for ESL students. Also, the court recommendations were used as the legal framework in other matters related to language learning programs and meeting the student's civil rights.

Other significant cases shaping bilingual education program development were *The United States v. Texas* (1971, 1981). In *United States v. Texas* (1971), the United States District Court of the Eastern District of Texas mandated Texas to assume responsibility for desegregating Texas public schools for students whose native or primary language was not English.

In *United States v. Texas* (1981) underscored that the Texas Education Agency (TEA) had failed to meet the needs of language minority students. The court mandated creation of specific curriculum programs that when operative would ensure equal educational opportunities for all its students. Specifically, it emphasized that TEA must develop specific educational programs for minority children whose language is other than English (*United States v. State of Texas*., 506 F. Supp. 405,

409.1981). As a result of this case, Texas passed laws for expanding bilingual education and ESL programs.

Figure 2

Key Legal Cases that Shaped Bilingual Education Legislation

1954-Brown v. Board of Education of Topeka

1974-The Lau v. Nichols
Established the need to develop English learning programs and bilingual education programs to meet ELs rights.

1971-United States v. Texas
TEA assumed responsibility for desegregating Texas public school students, including those native or primary language was not English.

1981-Castañeda v. Pickard
To meet the standards set by this case, programs for English learners have to be based on sound educational theory, offer appropriate resources and personnel, and be evaluated to ensure they meet English learners' educational needs.

1981-United States v. Texas
TEA failed have programs for ELs that addressed the language barriers under the Equal Educational Opportunities Act (EEOA). Texas passed laws for expanding bilingual education and ESL programs.

Note: The key legal cases that influenced education legislation related to English learners' educational needs. TEA- Texas Education Agency, ELs=English learners, ELS= English as a Second Language, EEOA= Equal Educational Opportunities Act.

Societal changes, President Johnson's War on Poverty legislation, and the cascade of legal cases advocating the educational rights for English language learners

led to the passage of the Bilingual Education Act (BEA,1968), also known as Title VII of the Elementary and Secondary Education (Blanton, 2005; Bybee et al., 2014). BEA served as the legislative cornerstone for funding and development of bilingual education programs. The act marked a significant milestone for the education of English Learners. It led to the rise of community activism and litigation from parents and advocacy for ELs' rights (Fenner, 2012).

The BEA was the first federal law that addressed the educational needs of English Learners. It was also the first legal framework for states to develop educational policies for bilingual students (Wiese & Garcia, 2010). Initially, the BEA did not have direct funding tied to it. A year later, the BEA offered local school districts competitive grants. It is worth highlighting that initially, the BEA did not require bilingual instruction in the student's native language. The BEA emphasized bilingual students from low-income families, and it encouraged innovative educational programs to teach English to English Learners (Wiese & Garcia, 2001). The BEA had an ambiguous nature because it provided minimal structural guidelines for local education agencies to set up bilingual programs (Ovando, 2003; Wiese &Garcia, 2010). Throughout the decades, the BEA has gone through legislative transformations to ensure the educational rights of English language learners. The BEA evolution reflected the academic debate on bilingual education and the political views of the time.

There have been numerous BEA reauthorizations to help define and shape bilingual education. Due to the ambiguous nature of the initial BEA (1968), Congress reauthorized this Act in 1974. The reauthorization aimed to determine the federal

definition of bilingual education and placed importance on the student's native language. The BEA (1974) encouraged native-language instruction as a transitional tool to learn English, while students were provided academic content in the student's native language (Wiese& Garcia, 2010).

The reauthorization of BEA in 1974 provided several contributions to bilingual education policies such as (a) a federal definition of bilingual education; (b) parent involvement in bilingual educational planning; (c) the personnel providing bilingual education must be proficient in the language of instruction and in English; and (d) school districts must demonstrate continual funding for the bilingual programs (Wiese& Garcia, 2010). The BEA was reauthorized again in 1984 and it marked a significant philosophical shift from bilingual-only programs with a great emphasis on the role of native language to English-only programs (Garcia & Sung, 2018; Wiese & Garcia, 2010). The revised BEA, 1984, bilingual programs that focused on structured English-language instruction. The sole purpose of the native language was to facilitate English instruction. Several researchers (Fenner, 2012; Garcia & Sung, 2018; Wiese & Garcia, 2010) highlight that the 1984 reauthorization opened the door to programs with language assimilation ideology. The significant philosophical shift did not only affect the definition of bilingual education but also the federal funding. A considerable part of the federal grants for bilingual education was reserved for transitional bilingual programs with an emphasis on English instruction (Garcia& Sung, 2018; Wiese & Garcia, 2010). The 1988 BEA reauthorization did not propose significant changes in bilingual education. It marked a difference in the amount of federal funding for bilingual education.

The year 1994 marked a significant change in educational policies, promoted by reauthorization of the Elementary and Secondary Act (ESEA), and the BEA. The 1994 BEA reauthorization marked a shift from language assimilation philosophy. The main contributions of the 1994 BEA reauthorization were prioritizing English learning programs that promoted bilingualism. Also, emphasized were the removal of financial quotas, the emphasis on two-way immersion programs, and the enhancement of indigenous language programs (Fenner, 2012; Garcia & Sung, 2018; Wiese & Garcia, 2010).

The No Child Left Behind Act (NCLB), 2001, marked the end of the Bilingual Education Act. Within NCLB, Language Instruction for Limited English Proficient and Immigrant Students under Title III replaced the BEA. NCLB contributed to significant changes in bilingual education and state accountability for bilingual education. NCLB put a great emphasis on accountability for state education agencies to ensure academic success for all its students. School funding was directly tied to performance in high-stake testing (Fenner, 2012; Menken, 2013). Specifically, language learners and emergent bilingual students needed to show ongoing progress in assessments of English language proficiency and academic content (Menken, 2013). NCLB contributed to creating measurable language learning standards.

The pressure from high-stake testing and funding directly tied to student progress and performance in state assessments lead to a decrease in bilingual education programs. Menken (2013) underscores that NCLB contributed to the decline of bilingual programs and antibilingual state policies in California, Arizona, and Massachusetts. The NCLB Act intended to address the low academic performance between ethnic and socioeconomic

subgroups and encouraged schools to implement scientifically proven educational

methods (Dennis, 20016). The Every Student Succeeds Act (ESSA) of 2015 replaced

NCLB, though it emphasizes similar themes as NCLB. ESSA highlights the importance

of quality reading instruction and the need to address the disparities in reading

performance among racial and ethnic minority subgroups. One of the main differences

between NCLB is that ESSA emphasizes on the role of states in solving problems in a

school's performance more than did NCLB.

Figure 3

Key Legislation Related to ELs

BEA

1968- Title VII of the Elementary and Secondary Education

1974-framework of bilingual education implementaion.

1984- emphasis in English transition, language assimilation

1994- English learning programs that promoted bilingualism.

NCLB (2001)

Language Instruction for Limited English Proficient and Immigrant students under title III .

A great emphasis on accountability for state education agencies.

 Measurable language proficiency standards.

Due to high stake testing, a decrease in bilingual education programs.

ESSA (2011)

 The need to address disparities in academic performance among minority subgroups and, more specifically, language learners.

Increased role of the states in addressing educational needs.

Note: Key historical legislation and related changes involving bilingual education and ELs. BEA- Bilingual Education Act, NCLB- No Child Left Behind, ESSA=Every Student Succeeds Act.

In light of the legal framework to address the reading disparities among minority subgroups and, more specifically, English Learners, -it is critical to evaluate bilingual education program approaches in elementary school. Further, investigating whether the language of testing on a standardized state reading assessment and language proficiency in the early grades may influence achievement on these measures later on (i.e., performance at the end of the elementary school and in middle school) remains important.

The implementation and the success of many bilingual education programs have led to many academic debates about the best approaches for bilingual education and about, what approaches meet the students' educational and cultural needs. In the heart of the debate about bilingual education is how native language and English are taught. The interpretation of when and how the student will transfer language information from native language to English is the foundation of theoretical approaches for bilingual education.

Bilingual Education in Texas

Texas has a rich history of bilingual education. Various ethnic communities, such as Czech, German, and Mexican communities, taught both the native language and English (Blanton, 2005). Despite the state's early and rich tradition in bilingual education, Texas bilingual education faced many legal battles and challenges. In the early to mid-20th century, the educational approach to English-only instruction was

legally supported by the Texas law in 1923 that decreed English-only instruction in Texas (Bybee et al., 2014; Ovando, 2003). Several legal cases challenged the constitutional legality of the English-only pedagogy or "monolingual ideology", and Texas laws to have English only instruction in private and public schools (Ovando, 2013). The English-only approach or monolingual ideology dominated much of the first half of the 20th century and lead to the "sink or swim" policies. Researchers (Blanton, 2004; Bybee et al., 2014; Ovando, 2003) highlight that the English only pedagogical approach in Texas lead to the segregation of Spanish-speaking Mexican American students.

Texas has played a significant role in shaping the legislation about bilingual education. The legal cases of *Castañeda v. Pickard* (1981) and the *United States v. Texas* (1971, 1981) served as primary drivers to reform bilingual education (Ovando, 2003). Court decisions served as primary drivers in implementing educational programs for bilingual students and paved the road for direct legislative reform. In the last fifty years have been marked various legislative efforts to ensure the educational right of language learners.

Theoretical Approaches in Bilingual Education and Language Learning

There are numerous theoretical approaches to the delivery of bilingual education. Bilingual education is a broad umbrella under which several theoretical approaches rest. At the heart of all the bilingual education approaches is the interpretation of the relationship between the native language and second language learning. Also, the role the native language plays in second-language acquisition and the amount of exposure

requires for second-language acquisition are the central themes in bilingual education approaches.

One of the most prevailing theories is the interdependence theory of Cummins's (2000). The *interdependence theory* significantly focuses on the relationship between the native language (L1) and the learning of a second language (L2). Cummins's approach highlights the belief that the instruction in L1 is instrumental in fostering acquisition of L2. The mastering of language development skills in L1 is the steppingstone in the L2 acquisition success. The mastering of language skills in L1 is key in explaining the interdependence theory. The interdependence theory hypothesizes that the amount of language development in L1 is transferable in L2; the amount of linguistic knowledge in L1 will influence the L2 acquisition. A significant element of the interdependence theory is the threshold hypothesis. The language learners must have a minimum threshold in the L1 proficiency to facilitate L2 acquisition (Cummins, 2000). In other words, the students must have the necessary preexisting language knowledge in their native language (L1) before learning a second language (L2). Cummins proposed the term *common underlying proficiency* (CUP) to suggest the same parts of the brain are activated when skills in the language are transferred from L1 to L2. Finally, Cummins highlights that there are substantial cognitive benefits to being bilingual.

Cummins (2000) concluded that students who have deficiencies in proficiency levels in L1 most likely will struggle in L2 acquisition. On the other hand, students with high proficiency levels in L1 will be more successful in L2 acquisition. Also, students with high proficiency levels in L1 and L2 perform better than monolingual students (Cummins, 2000). Critical components of interdependence theory and threshold

hypotheses are based on the relationship between social and academic language.

Cummins highlights that there are two foundational skills in language development, *basic interpersonal communication skills* (BICS) and *cognitive academic language proficiency* (CALP). BICS refers to social language skills, language used in face-to-face interactions, and language used in social interactions. BICS relates to the conversational development of the language. BICS relies on simple language structures and rich context of nonverbal communication. CALP refers to the language used in the academic setting, the language used in the classroom, and the need to master various subjects (Cummins, 2000).

Cognitively BICS is less demanding than CALP since it heavily relies upon simple language structures and richness of the context nonverbal messages. CALP is cognitively more demanding since it relies on complex language structures, specialized vocabulary.

CALP uses all the elements of the language-listening, speaking, reading, and writing.

Cummins' theory encourages the use of native language in school instruction because it sets the foundation for English acquisition. The stronger the L1 skills, the theory holds, easier will be the transfer in L2. For example, if a student has a solid understanding of a concept or word in L1, all that is needed is to transfer this knowledge in a different language is the vocabulary that corresponds to the concept in L2. In other words, if a student understands the concepts of democracy in L1, the student only needs the corresponding word in L2.

Cummins (2000) highlighted the ideas of *additive bilingualism* and *subtractive bilingualism* as a critical way of viewing the construction of bilingual education programs and the interaction between L1 and L2 learning. Additive bilingualism occurs when students continue to learn academic concepts in L1 while learning L2. As L2 acquisition

develops, the student will have the lexical transfer of the academic concepts from L1 to L2. Cummins highlighted several benefits of additive bilingualism such as nurturing significant cognitive benefits, helping literacy development in both languages, and boosting the value of cultural and linguistic heritage. In subtractive bilingualism, L2 acquisition is seen as a priority, and there is not focus on strengthening L1 development. Cummins emphasized that subtractive bilingualism does not have as many positive outcomes in compression with additive bilingualism. Cummins advocates in bilingual programs that strengthen both L1 and L2. In pedagogical practices, bilingual student's language development in L1 plays a foundational role in learning L2.

In conclusion, students will struggle in L2 development if they do not have adequate L1 development. In terms of the language of assessment, it is vital to assess language proficiency levels in both L1 and L2. Educators must embrace the idea that language development and language proficiency are key indicators deciding the language of assessment in a standardized test. In other words, we can use L1 as a language of assessment when L1 language proficiency levels are better than L2. The educators can use L2 as the language of a standardized assessment when the proficiency levels in L2 are on par with L1 development.

Another dominant theory contributing to the field of bilingual education and second language acquisition is Krashen's Theory of Second Language Acquisition (Krashen,1982 which is focused on five central hypotheses:(a) the acquisition-learning hypothesis, (b) the monitor hypothesis, (c) the input hypothesis, (d) the affective filter hypothesis, and (e) the natural order hypothesis. The acquisition-learning hypothesis revolves around two ways of acquiring a new language, by acquisition and by learning

(Krashen, 1982). *Acquisition* refers to the sub-conscious process of acquiring a language, and *learning* refers to the conscious process of learning about the language. The *monitor hypothesis* involves leaner' ability to monitor language learning and what they are producing. The *input hypothesis* implies that language acquisition happens when learners can understand the information (comprehensible input) and presents a new composition, or, as Krashen stated, (it understanding) moves us (language learners) "a little beyond where we are now" (p.21). In other words, the language learner must have sufficient knowledge in the new language before learning further information. The preexisting linguistic knowledge serves a bridge for the new linguistic information. The *affective filter hypothesis* suggests that language acquisition is dependent on many affective variables such as self-confidence, motivation, stress, and anxiety. The *natural order hypothesis* suggests that language acquisition follows a predictable order regardless of the student's first language (Krashen, 1982).

Krashen's theory played a fundamental role in understanding second language acquisition and what are the essential needs of language learners. Krashen's theory enforces the idea that exposure to academic concepts in L1 it helps language learners transfer the knowledge in L2. The academic instruction in L1 provides structural and contextual clues for L2 learners while learning L2 (MacSwan et al., 2017). Krashen's theory served as a seminal framework for developing bilingual and language learning programs. In an educational setting, the students must have adequate knowledge in L1 and L1 acquisition must be foster to facilitate the lexical transfer in L2.

Krashen's theory focuses mainly on processes involved in L2 acquisition. It emphasizes that there should be a strong foundation in L1 prior than transferring the

knowledge in L2. Translating this into language of standardized assessment educators must consider if the student has adequate L1 academic knowledge and if this knowledge is supported by L2 lexical information.

Another theory for bilingual education is transfer theory from MacSwan and Rolstad's (2005). *Transfer theory* suggests that language learners will be more academically successful if they simultaneously are learning academic concepts in L1 and learning L2. This theory states that the students will transfer the knowledge in L1 at the same time as acquiring L2. (MacSwan et al., 2017). This theory underscores the importance of exposing language learners to both languages. This theory endorses having equal academic exposure in both L1 and L2. In an educational setting, the students will have the same exposure in both languages. Such equal exposure on L1 and L2 indicates that either L1 or L2 can be used in standardized assessments.

Rossell and Baker (1996) suggested a time-on -task theory as it is related to bilingual education. The premise of the *time-on task-theory* is that language acquisition is greatly dependable on the time student spend in L2. The theory suggests that more time students spend hearing, speaking, or studying L2, higher results in proficiency level in L2 (Rossell, & Baker, 1996). In other words, the critical factor in learning a new language (L2) is the amount of exposure and practice. This theory does not consider L1 development; it greatly highlights in the importance of maximizing L2 exposure.

In pedagogical practices, bilingual students have academic instruction mainly in English without a focus on strengthening language development in both languages. The standardized assessments according to this theory must be in English.

Bilingual Education Debate

There are ongoing debates with regards to bilingual education and its role in academic success and preserving the cultural identity of ELs. Many questions have been raised pertaining to the best approach for helping students, how bilingual programs support the closing of the achievement gap among Hispanic students, the role of bilingual education has in cultural and heritage assimilation, and the role of federal and local policies play in bilingual education.

Advocates of bilingual education underscore that bilingual education is the most effective way to help students learn English by using the first language as a transferring bridge in the process of language learning. The fundamental premise of these advocates is that learning and mastering the native language is critical in the process of learning English. As noted, many researchers have pointed out the benefits of bilingual education (e.g., Cummins, 1981, 2000; Hakuta, & Gould, 1987; Krashen 1996; Rolstad et al.,2005). Bilingual education has been shown to help preserve students' linguistic, fosters cultural heritage, continual exposure of academic knowledge, and secure learning the necessary English skills. As researchers (Hakuna, & Gould, 1987; Rolstad et al., 2005) synthesize the research on bilingual education, they underscore that bilingualism is a cognitive asset. They also note that bilingual instructional approaches are effective in addressing language learner's academic achievement and preserving the learner's linguistic and cultural identity.

Despite the well-documented empirical evidence on the benefits of bilingual education, questions remain in terms of its effectiveness in promoting Hispanic, bilingual students' academic achievement. Ovando (2003) highlights that opposition to bilingual education often stems from blaming bilingual education for the high rate of Hispanic

students drop out. Similarly, Krashen, and Cummins, (2000), note that bilingual education is often used as a scapegoat to mask numerous variables contributing to a high rate of dropout rate among Hispanic students such as poverty, lack of funding, and the inconsistencies in the implementation of bilingual program models. The theoretical approaches about language acquisition and literacy development have led to a variety of bilingual education models.

Bilingual Education Models

Bilingual education is an umbrella under which many models of teaching in two languages are sheltered (Kennedy, 2019). The different theoretical approaches in language acquisition and bilingual education have led to different models of bilingual education. The central and common theme in bilingual programs is that native language plays a pivotal role in language learning. The differences between various bilingual education models center around the time needed to transfer native language to English. Generally, there are two main categories of bilingual education transitional bilingual education (TBE) and dual language immersion (DLI). (see Kennedy 2019; Maughamian et al., 2009).

The purpose of TBE is to help students' transition knowledge from their native language to English. The ELs learn grade-level skills in their native language at the same time acquiring English to facilitate the transition from native language to English (Kennedy, 2019; Moughamian et al., 2009). Students in TBE programs receive academic instruction in their native language until they have reached a proficiency in English, which will, in theory, allow the transfer of knowledge.

The TBE has two main approaches, early exit, and late-exit. In early exit programs, the students receive 2 years of instruction in their native language and late-exit up to 6 years of instructions in their native language (Kennedy, 2019). Both early and late-exit options encourage the English language acquisition, and the native language is used as a transferring tool until the English language proficiency is reached. The concept of using native language merely to facilitate transition into English has led to the debate on primary language loss (Kennedy, 2019). The TBE programs have been in the center of the discussion for the assimilation nature and devaluing child cultural and linguistic needs (Moughamian et al., 2009).

The DLI aims to develop a student's language skills in a native language and English (Kennedy, 2019) simultaneously. The main feature of the DLI program is equal exposure in both languages. The DLI programs have not only been used to facilitate English learning in ELs, but also to immerse them in another language (Moughamian et al., 2009). The TBE and DLI are two broad categories, and many programs have derived from these two main approaches. The following section will address the literature related to the language of instruction, specifically in the areas of reading, literacy and student achievement outcomes.

Language of Instruction and Reading Performance

Snow et al., (1998) emphasize the significant impact reading difficulties have not only in academic achievement but also in later success in life. There is significant empirical evidence on the importance of developing strong literacy skills in early grades and its direct impact on developing reading skills. The development of strong literacy skills in both languages has a substantial impact on reading abilities later in life. The

research shows that strong language and literacy development in lower grades in Spanish translated into faster English acquisition and closing academic gaps (Collier, & Thomas, 2004; Nakamoto et al., 2007).

Nakamoto et al. (2007) demonstrated that there is a direct link between oral language development in early grades and student reading abilities in later grades. Early language development in both languages, English and Spanish, has a direct impact on phonological awareness. Phonological awareness represents the ability to understand, differentiate, and manipulate sounds in the language. It serves as a steppingstone in reading primarily related to the student's ability to decode words (the ability to read words by putting together sounds and letters). Research shows that phonological awareness in both languages plays a central role in language development and sets a strong foundation for decoding. Nakamoto et al. (2007) highlighted that phonological awareness and decoding were significant predictors in reading abilities in both languages.

Both phonological awareness and decoding skills in early grades in both languages have a direct link to reading performance in both languages later years. The development of robust phonological awareness, and decoding abilities in Spanish translated in easier transition in English reading abilities. Also, building background knowledge for students in Spanish helped English vocabulary development. Strong literacy development in early grades plays a vital role in future reading success.

Reese et al. (2000) highlighted that factors hindering reading performance for bilingual Spanish speaking students were (a) minimal phonemic awareness; (b) poor reading decoding skills; (c) weak literacy development in Spanish in lower grades; (d) limited vocabulary development in both Spanish and English; and, (e) late exposure to

English language. Early Spanish literacy development in the beginning of kindergarten plays a critical role in reading success later in life. Reese et al. (2000) reported that students with emergent literacy development in Spanish in the beginning of kindergarten was a key predictor of English reading abilities eight years later.

Early development of phonemic awareness in Spanish translated into better literacy development in Spanish. Reese et al. (2000) highlighted that successful literacy development in Spanish serves as an advantage in successful English literacy development. Early oral English development was another factor in predicting English reading abilities later in schooling.

The researchers also demonstrated that students with both emergent Spanish literacy development and early oral English development were able to transition faster in English reading and have positive reading proficiency in middle school. Also, the parents' socioeconomic status and family literacy practices played a significant role in development both early Spanish literacy and later English reading success (Reese et al., 2000).

Similarly, Proctor et al. (2010) asserted that strong language development in Spanish translates in faster English language acquisition, and it has a direct impact on reading performance in both Spanish and English. Students who had strong literacy skills in Spanish in lower grades outperformed English-speaking students. On reading assessments after fifth grade bilingual Spanish speaking Students who had been instructed in Spanish until the fifth-grade outperformed reading bilingual Spanish students' who were instructed in English until fifth grade (Proctor et al.,2010).

Proctor et al., (2010) emphasized that Spanish language instruction does hinder literacy development in English. It emphasized the importance of strong literacy skills in Spanish before transitioning in English. The fast transition in English hindered the maintenance of Spanish literacy skills later in school and Spanish maintenance instruction helps in preserving Spanish literacy skills. The development of strong literacy skills in Spanish serves as a key predictor in transferring the literacy skills in English. This enforces the idea from Krashen and Cummins's (2000) that strong language development and literacy skills in native language translates in successful second language acquisition.

In terms of reading outcomes among bilingual Spanish speaking students, Collier and Thomas (2004) reported that bilingual education has significant positive outcomes among Spanish-speaking students' academic achievement. The longitudinal findings from different bilingual programs such as one-way and two-way language models had a positive link in closing the achievement gap among Spanish-speaking students (Collier & Thomas, 2004). The academic outcomes of any bilingual education were directly linked to the quality of the program and the faithful implementation of bilingual education principles. Researchers highlight the importance of quality literacy programs in both Spanish and English (Collier & Thomas, 2004; Proctor et al., 2010).

In other words, in the heart of the reading success are well-developed language and literacy skills in both Spanish and English. Choosing of what language standards assessment that bilingual Spanish students should be assessed in standardized assessments is dependent on language and literacy development in both Spanish and

English. It is also the case that, there is legislative supervision that regulates the procedures in determining the language of assessment.

Legislative Regulations for Bilingual Education and Testing in Texas

In general, Texas legislative regulations have mirrored the changes from federal regulation. Historically, Texas has needed to address the educational needs of bilingual and non- English-speaking Hispanic students because the constant growth of the Hispanic student population. The last decades in Texas have marked the genesis of high-stake testing to measure academic progress. Texas Technical Digest by TEA provides a chronological timeframe and regulation of state-mandated assessments. The *Technical Digest Report* 2017-2018 highlights that in 1979, the 66th legislature required Texas school district to follow the primary standard in mathematic for mathematics, reading, and writing for Grades 3, 5 and 9.

Nineteen eighty marked the genesis of state-mandated assessments to measure a minimum of academic skills in core academic subjects with the Texas Assessment of Basic Skills (TABS) test. In 1990 TEA implemented the criterion-referenced testing program, the Texas Assessment of Academic Skills (TAAS). TAAS, for the first time, had assessments in Spanish for Spanish speaking students in bilingual programs for both reading and mathematics. In 1996, the Spanish-language TAAS was used for Grades 3 through 6. In 1998, TEA regulated and mandated standards for Spanish language arts and English as a second language (Technical Digest, 2017-2018).

Until 2000 Texas did not have a specific standardized state assessment to measure the English linguistic proficiencies for ELs. The Reading Proficiency Tests in English (RPTE) were implemented to measure reading acquisition among ELs. In 2003 TAAS

was replaced with the Texas Assessment of Knowledge and Skills (TAKS). The TAKS offered Spanish version of the state test for Spanish-speaking students in bilingual programs in Grades 3 to 6. The NCLB Act directed new regulations in terms of ELs performance. To comply with the NCLB Act regulations and recommendations, TEA developed in 2004 the Texas English Language Proficiency Assessment System (TELPAS) to measure language proficiency of ELs students in four language domains: listening, speaking, reading, and writing.

In 2005, TEA designed a linguistically accommodating testing process to meet the requirements from NCLB to address the linguistic needs of ELs in standardized testing. 2012 marked the birth of a new state assessment, the State of Texas Assessments of Academic Readiness, or STAAR. Spanish version of the STAAR is available for Spanish speaking students in Grades 3-6. With the new requirement from Title III, Part A of the Elementary and Secondary Education Act (ESEA), and then reauthorized by 34 CFR §200.6 of the ESSA states must measure annual performance assessments of ELs in the four language domains of listening, speaking, reading, and writing along with core academic content.

TEA highlights that TEPLAS and STAAR measurement tools to show direct compliance with ESSA. In 2016, TEA implemented the use of designated language support in-state assessments to address the linguistic needs of ELs. The designated language support includes tools that ELs can use such as dictionary and supports embedded in the online test (i.e., text-to-speech feature) during a state assessment. The figure below illustrates the chronological development of standardized assessment in Texas for Els and bilingual Spanish speaking students.

Figure 4

Timeline of Standardized Assessment in Texas.

Timeline of Standardized Assessment in Texas

- 1980- Texas Assessment of Basic Skills (TABS)- core subjects
- 1990-Assessment of Academic Skills (TAAS).Spanish test in Math and Reading for Elementary bilingual students.
- 1996-standards for Spanish language arts and English as a second language
- 2000-The Reading Proficiency Tests in English (RPTE)
- 2003-The Texas Assessment of Knowledge and Skills (TAKS).
- 2004 the Texas English Language Proficiency Assessment System (TELPAS) to measure linguistic proficiencies of ELs students in four language domains listening, speaking, reading, and writing
- 2012-The State of Texas Assessments of Academic Readiness (STAAR). STAAR in Spanish for grade 3-5.
- 2016-Revision to STAAR and TELPAS to meet Every Student Succeeds Act (ESSA) requirments for ELs

Chapters 39 and Chapter 101, of TEC highlight procedures for determining the language of testing in the state assessments. TEC requires schools LPAC to make appropriate educational decisions for each English Learner (ELs). The LPAC, as explained at the end of Chapter I is composed of various school personnel and stakeholders and determines the language of testing in a standardized test (TEA, 2019).

At the heart of reading success for bilingual Spanish-speaking, students are two critical elements students need: (a) to acquire well-developed language and literacy skills in both Spanish and English, and (b) to participate in a quality of bilingual program that is properly implemented.

The language used in standardized testing is often dependent on the language of the instruction. The choice of Spanish or English for standardized testing needs to rest on the evaluation of the child language and literacy development in both Spanish and English. There is significant empirical evidence that indicates successful language and literacy development in both Spanish and English will result in higher academic performance among bilingual Spanish speaking students. There is minimal literature on the longitudinal effects of language of instruction or language of assessment specifically in third grade and what role, if any, these choices play in reading performance in later years.

Chapter III

Methods

Reading is the cornerstone in a child's academic success and life. Inner-city, Hispanic, Spanish-speaking, ELs are struggling to meet state requirements on reading the assessment test (KewalRamani et al., 2017; Young et al., 2012). This is particularly important in inner city schools, considering the demographic shift the recent years shows that fastest-growing demographic nationwide is Hispanic, Spanish-speaking students (NCES, 2016). Research demonstrates that students who struggle in reading in lower grades are at higher chance to repeat a grade; are at-risk for special education placement, of not graduating from high school, having lower earnings, becoming teen parents and entering the juvenile system (Chhabra & McCardle, 2004; Francis et al.,1996; Snow et al., 1998).

This chapter details the design and methods used in this study to examine longitudinal reading performance as measured by the STAAR for Hispanic, Spanish-speaking, ELs enrolled in a bilingual program in an inner-city school district. The primary purpose of this study was to determine whether differences exist longitudinally in reading performance between students enrolled in a bilingual program in Grade 3 who took the STAAR reading test in Spanish versus those who took the test in English. This study aimed to evaluate whether the language for state standardized test of reading in third grade had an influence on reading performance at the end of elementary school and at the end of middle school.

Research Questions

The specific research questions to be addressed in this study include:

1. Is there a statistical difference in performance among third-grade bilingual students who took the State of Texas Assessments of Academic Readiness (STAAR) reading test in Spanish versus those who took it in English?

2. Is there a difference in STAAR reading performance in Grades 5 and 8 for students who took Grade 3 STAAR in English versus Spanish?

3. How does language proficiency and reading performance in Grade 3 predict reading performance on high stake assessments (STAAR) in Grade 5 and Grade 8?

Design

The proposed study was quantitative in nature. The study undertook a descriptive research design to examine the longitudinal influence of language proficiency on reading performance. The study compared longitudinal data on reading performance over five years for a sample of ELs, with an exclusive focus on archival data. The research was based on a panel design with three data waves from the STAAR test reading performance. The three different points in time were at the end of third grade, fifth grade, and eighth grade. The study examined STAAR performance for two groups of Hispanic, ELs enrolled in bilingual program, those who took the Grade 3 STAAR Reading measure in Spanish and those who took it in English.

Sampling

The setting for this in this study was an urban school district located in Northeast, Houston. The district has a considerable number of Hispanic, Spanish speaking, EL students. The school district demographics have drastically changed in the last 40 years from a suburban district to an urban school district and a district with a majority of white students to a district serving mostly minority Hispanic students (Juarez, 2013). This

district reflects not only Texas trends in student demographics, but also national trends as

Hispanic students' population is the fastest growing student population (NCES, 2016).

Additionally, Figure 5 demonstrates that the district has a considerable number of

Hispanic, Spanish speaking students enrolled in bilingual or ESL programs. The

population of these students in this district is nearly double the rate in Texas.

Figure 5

Percentage of ELs in a bilingual or ESL program Texas and district
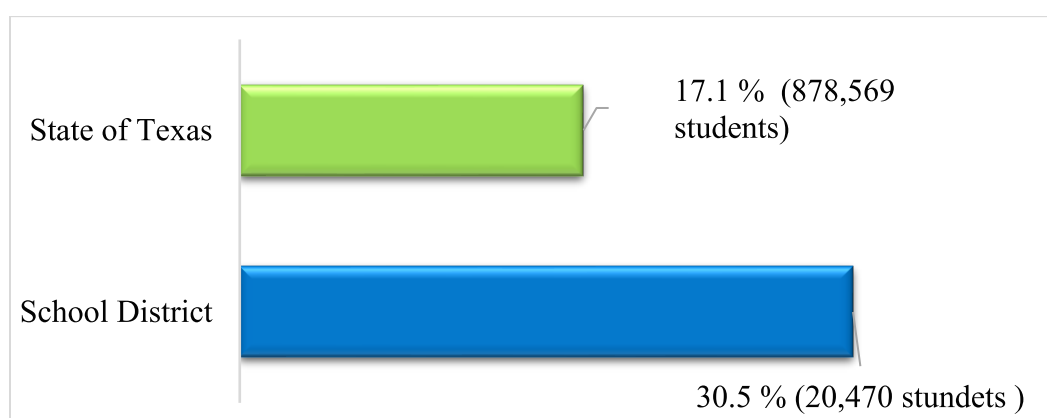
Note: Percentage and number of students enrolled in ESL or Bilingual program in state of
Texas and the district. ELs= English Learners; ELS= English as a Second Language.
Data from the Texas Academic Performance Report (2013-2014), District Profile

The target population for this study includes Hispanic, ELs who were in Grade 3

and enrolled in this district during the 2013-2014 academic year. Specific inclusion

criteria included students who attended a Title 1 school in the district, who were

continuously enrolled in the bilingual education program up to Grade 3, and who have

STAAR data in at least Grade 5 or 8.

The bilingual program utilized in for this study was an early exit transitional

bilingual model. It served students whose first language was Spanish. In other words, in

the home language survey, they reported Spanish as a first language, and parents decided

to enroll the student in the district bilingual program for Spanish speaking students. Students identified as gifted and talented were also included. The bilingual students served under the special education umbrella were excluded from the data because the group represented a very small number of students. The district serves most of the special education students in the ESL program.

Sample

There were 936 students in this study who were continually enrolled in the district's bilingual program from kindergarten through Grade 3. The bilingual program served students whose first and home language was Spanish. There were 469 females (50.1 %) and 467 males (49.9%). The entire sample (100%) was identified economic disadvantaged and eligible for free and reduced lunch. A total 64 students (6.8%) of the sample were identified as GT. 605 students (64.6%) had been identified as at-risk population. The at-risk-indicator-code indicates whether a student is currently identified as at-risk of dropping out of school using state-defined criteria (TEC §29.081, Compensatory and Accelerated Instruction).

In the sample, 62.4% had exited the bilingual program by Grade 5; 37.6% of the sample were still served under the district bilingual education program through Grade 5. Of the student in the sample of 518 students, (55.3%) who took Grade 3, STAAR in English and 418 students, (44.7%) took the STAAR in Spanish. Of the 840 students who remained in the district through Grade 5 and for whom the data were available, all, but two students took STAAR in English. The small percentage of students who took Spanish STAAR test Grade 5 was primarily because the district uses an early exit model of the bilingual education. In addition, during this particular year (2015-2016) Grade 5

was part of district intermediate schools. Of the initial sample, a total of 842 students had

STAAR data available in Grade 8.

Procedures

Extant data for students who meet the study inclusion criteria from this district

was requested. Demographic data such as gender, eligibility for the free and reduced

lunch program, identification as a student with a disability, and identification as a gifted

talented student was collected. The study utilized archival STAAR at three historical

time points (Grade 3, 5, 8) and students TELPAS score and performance at Grade 3. Both

the students' scaled score performance on STAAR and their proficiency level (e.g.,

Exceeds, Meets, Approaches, or Does Not Meet Expectations) were collected. The study

was approved by the Institutional Review Board at the University of Houston. The

district released the data for this research from the Public Education Information

Management System (PEIMS) using the district data platform.

Measures

State of Texas Assessment of Academic Readiness (STAAR)

The STAAR is a standardized test, which assesses students' performance on the

state curriculum standards. The STAAR reading test is given yearly to students in Grade3

through Grade 8. Specifically, STAAR Reading for Grades 3–8 is administered in the

spring and assess student knowledge on the state standards for each specific grade level,

the Texas Essential Knowledge and Skills (TEKS).

The standards are clustered into two subcategories readiness standards and

supporting standards. The readiness standards address the following: fundamental

concepts for a specific subject, skills needed in the current grade, preparedness for the

next grade. The supporting standards include the following: new concepts introduced in the current grade and needed for the success in a subsequent academic year, skills learned from previous years (TEA, 2020). The TEKS evolve in rigor from year to year to ensure academic preparedness and college readiness. Chapter 2, Test Design and Setting Student Performance Standards, for State of Texas Assessments of Academic Readiness, (STAAR) Grades 3–8 and, STAAR End-of-Course (EOC). It is worth indicating that during the timeline used in this research TEA has changed the Language Arts standards (TEKS) and STAAR has evolved to reflect the changes in TEKS. The figure below indicates the reading reporting categories assessed in Grade 3, 5, and 8.

Figure 6

Reading Reporting Categories

| Understanding/Analysis Across Genres |
| Understanding/Analysis of Literary Texts |
| Understanding/Analysis of Informational Texts |
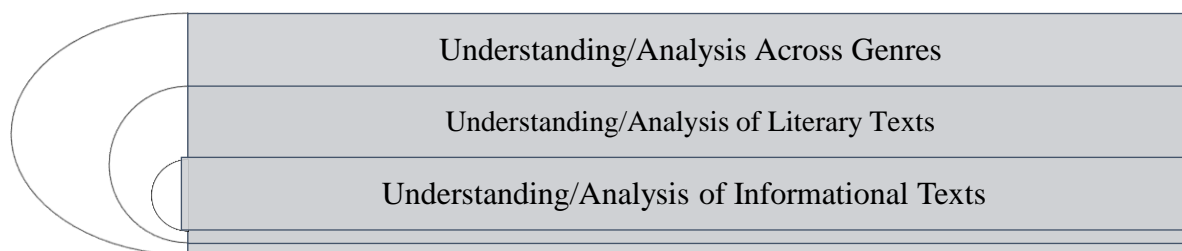
Note: The TEA has changed the standards for Language Arts standards (TEKS) in 2009 and 2017.

STAAR Performance Indicators. According to the Texas Education Agency (TEA), the student proficiency levels measure the students' performance in the tested subject, how well the student performs in the upcoming grade, and the need for academic intervention. The proficiency levels for STAAR are did not meet grade level, approaches grade level, meets grade level, and masters grade-level expectations (Texas Education Agency Student Assessment Division, 2017). Performance at *did not meet grade level*

indicates that the student does not have the reading skills to be successful in the next grade level. In other words, the student failed STAAR reading test. The *approaches grade* level expectation category suggests that the student met the minimum passing standard; however, the student requires targeted and intensive academic intervention to guarantee success in the next grade level. The label *meets* grade level indicates that the student is likely to succeed in the next grade level with some academic support. The *masters* grade level proficiency category suggests that the student will succeed in the next grade level without educational interventions (Texas Education Agency Student Assessment Division, 2017). In addition to the performance descriptors, the student STAAR scores are reported in two ways, raw and scaled scores. The raw score indicates the number of correctly answered questions out of the total amount of questions tested. The scale score is the conversion of the raw score into standardized levels of performance. The scaled scores for the reporting categories change yearly (Texas Education Agency Student Assessment Division, 2017).

STAAR for ELs. Texas Education Code (TEC) §29.051 -29.064 highlights the program requirements for Bilingual Education and ESL Programs. Chapter 89 specifies that for every student, who in their home language survey it is indicated that the student has a primary language other than English, the school must provide an educational opportunity for the student to be enrolled in either bilingual or ESL programs.

Adaptations for Special Populations Subchapter BB. Commissioner's Rules Concerning State Plan for Educating English Learners regulates and indicates some of the requirements Texas public school must meet for language learners. Chapter 39 of the Texas Education Code (TEC) and Chapter 101, Assessments, Subchapter CC.

Commissioner's Rules Concerning Implementation of the Academic Content Areas

Testing Program highlights procedures for determining the language of testing in the state

test. TEC requires schools to have Language Proficiency Assessment Committees

(LPACs) to make appropriate educational decisions for each English Learner. Part of the

LPAC committee are school administrators, Bilingual teachers, ESL teachers, core

connect teachers, and parents. The LPAC committee determines the language of testing

in a standardized test based on several factors, such as the predominant language of

instruction, English language proficiency levels, teacher feedback, and parent assistance

in decision-making (TEA, 2019).

Texas English Proficiency Assessment System (TELPAS)

In Texas, students' English proficiency level is determined by the Texas English

Language Proficiency Assessment System (TELPAS). The TELPAS measures the

progress that limited English proficient (LEP) students, also referred to as English

learners (ELs), make in learning the English language. TELPAS assesses the four areas

of language: writing, reading, speaking, and listening. Performance on this measure is

categorized in four levels, or stages, of increasing English language proficiency:

beginning, intermediate, advanced, and advanced high (TEA, 2020).

The progress of students on TELPAS assists the schools in evaluating ELs' annual

growth in learning to listen, speak, read, and write in English. It also indicates the level of

English proficiency in the context of grade-level instruction. It is worth noting that the

test components and the way the students are assessed have changed over time.

Nevertheless, the proficiency levels in TELPAS, play a role in decision making when

determining the language of testing in STAAR. The LPAC committee considers all

factors, and in collaboration, they make an educational decision in what language the student will have the best academic outcome in the state standardized test.

Data Analysis

The study examined whether a statistically significant difference existed longitudinally between the reading achievements of third grade, bilingual Hispanic students who took the Grade 3 STAAR test in Spanish versus those who took in English.

To address Research Question 1, data from STAAR 2013-2014 at the end of Grade 3 was analyzed using a *t*-test to determine any group mean differences in STAAR reading performance between these two groups. A *t*-test compares the means of two independent groups to determine whether there is statistical evidence that the associated population means are significantly different: in this case, STAAR reading performance (Field, 2018). Additionally, a Hedge-*g* was utilized to measure the effect size, in terms of standardized difference between the means of two groups. The null hypothesis is there is no difference in performance between students who took Grade 3 STAAR reading in English versus those who took it in Spanish.

To address Research Question 2, the study also compared the reading performance of these two groups of students at the end of Grade 5 using the STAAR reading result for 2015-2016 and the end of Grade 8 using STAAR reading results for2018-2019. ANOVA was utilized to determine if there was a statistical difference between those two groups in STAAR reading performance at the end of Grade 5 and Grade 8. Again, a Hedges'-*g* was also used to measure the effect size, for the standardized differences between means for Grade 5 and Grade 8.

Finally, to address Research Question 3, two multiple linear regressions were utilized in order to examine the influence the English language proficiency (TELPAS) and student reading performance in Grade 3 (STAAR) on students' STAAR reading performance in Grade 5 and in Grade 8. The regression evaluated the amount of variance in the outcome could attributes to language proficiency levels and reading performance in Grade 3, as well as how each variable can influence reading performance in Grade 5 and 8.

Chapter IV

Results

The importance of reading and strong literacy skills in elementary school is well established. The academic literature provides a strong connection between reading performance in lower grades and later school success. There is strong empirical evidence that ELs struggle in reading throughout their schooling (Hakuta, & Gould, 1987; KewalRamani et al., 2007; Young et al., 2012). The study examined the statistical differences between students who took Spanish STAAR and those who took English STAAR. It also examined language proficiencies levels and reading performance in Grade 3 as predictors of later reading performance.

Descriptive Statistics

Table 1 below illustrates the distribution of central tendency among two groups (G3 STAAR English and G3 STAAR Spanish) on STAAR performance in Grades 3,5, and 8 and TELPAS scores in Grade 3.

Table 1

Distribution of Central Tendency

Test Grade	Full Sample			Students by Language of STAAR in Grade 3					
				English			Spanish		
STAAR	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*
Grade 3	936	1399.57	116.96	518	1411.53	93.19	418	1384.77	116.96
Grade 5	840	1517.89	109.55	488	1558.10	97.31	352	1462.13	100.92
Grade 8	842	1689.19	102.73	492	1716.22	94.24	350	1651.19	102.26
TELPAS Grade 3	936	699.02	62.09	418	731.31	50.01	418	659	50.01

Table 2 reports the performance of students on STAAR grade-level standards for Grades 3, 5, and 8 for the full sample and by groups–those taking the Grade 3 STAAR in English (the G3 group) and those taking the Grade 3 STAAR in Spanish (the G3S group). In Grade 5, 840 students were still enrolled in the district and had STAAR data. It is worth noting that in Grade 5 all, but two students took the Spanish STAAR. In Grade 8, there were 842 students who has remained in the district and had STAAR data. They all took STAAR in English.

Table 2

Study Participants STAAR Performance Category in Grades 3, 5, and 8

	Full Sample (%)	Students by Language of STAAR in Grade 3	
		English (%)	Spanish (%)
Grade 3	*(N = 936)*	*(N = 518)*	*(N = 418)*
Did Not Meet Grade Level	21.8	17.8	26.8
Approaches Grade Level	78.2	82.2	73.2
Meets Grade Level	33.1	33.1	34.2
Masters Grade Level	11.0	5.2	18.2
Grade 5	*(N = 840)*	*(N = 488)*	*(N = 352)*
Did Not Meet Grade Level	26.9	12.7	46.6
Approaches Grade Level	73.0	87.2	53.4
Meets Grade Level	30.9	44.5	12.2
Masters Grade Level	10.5	16.2	2.6
Grade 8	*(N = 842)*	*(N = 492)*	*(N = 350)*
Did Not Meet Grade Level	9.2	4.3	15.7
Approaches Grade Level	90.9	95.7	84.3
Meets Grade Level	49.2	61.4	32.3
Masters Grade Level	18.2	25.0	8.5

Note. The Texas Education Agency has different passing scaled scores in different grades and different years. STAAR = State of Texas Assessments of Academic Readiness

In order to provide context, Table 3 summarizes and compares the mean and median STAAR Reading scaled scores of students in the state (TX) and performance of students in the current sample.

Table 3

Distribution of Central Tendency Scale Score District and State

	Grade 3 2013-2014		Grade 5 2015-2016		Grade 8 2018-2019	
	Study	Texas	Study	Texas	Study	Texas
Mean	1399.57	1426.26	1517.89	1561.91	1689.19	1690.15
Median	1400.00	1429	1508.00	1563	1681.00	1700

Note. State scores were obtained from Technical Digest, TEA Scale Score Descriptive Statistics for STAAR for the specific years used in this study.

Table 3 highlights that in general, the performance of the students used for this study trailed behind the mean and median scores of all students in TX. It is worth noting that the mean performance of the sample in Grade 8 was nearly identical to all Grade 8 students in TX.

Research Question 1: Grade 3 STAAR Performance by Language of Testing.

The first research question was analyzed using a *t*-test to determine whether there was a statistical difference in performance among third-grade bilingual students who took the STAAR test in Spanish versus those who took it in English. There were 518 students that took the English STAAR test and 418 students that took the Spanish test. The results of the *t*-test, $(t = (934) = 3.50, p < .01)$ indicate there was a significant difference in scaled STAAR scores between the groups who took English test *(M = 1411.53, SD =*

93.19) and those who took the STAAR Spanish test ($M = 1384.77, SD = 139.66$). There was a 26.76-point mean difference in scaled scores between the two groups. The effect size was calculated using Hedges'- g, which indicated a small size effect of .23. These results suggest that students who took the STAAR test in English demonstrated stronger literacy skills, relative to standards assessed on STAAR, than peers who took the assessment in Spanish.

Research Question 2: Group Differences in Grade 5 and 8.

Two one-way ANOVAs were conducted to examine statistical differences in Grade 5 and 8 STAAR performance between students' who took Grade 3 STAAR in English versus those that took it in Spanish. The results of these two ANOVAs revealed that the students who took the English- language STAAR in Grade 3 continued to outperform the students who took the Spanish STAAR in Grade 3 both later time points (Grade 5 and 8).The results from the ANOVAs are provided in Table 4 below.

Table 4

ANOVA Results Comparing Groups in Grade 5 and 8 STAAR Reading Assessments

		Sum of Squares	*df*	Mean Square	*F*	Sig.
Grade 5	Between Groups	1883328.22	1	1883328.22	192.8	.000
	Within Groups	8185906.80	838	9768.39		
	Total	10069235.03	839			
Grade 8	Between Groups	865074.64	1	865074.64	90.72	.000
	Within Groups	8010388.35	840	9536.18		
	Total	8875462.98	841			

Note: STAAR = State of Texas Assessments of Academic Readiness; Sig. = significance

At Grade 5, ANOVA results [F (1,838) = 192,798, $p<.001$] suggest that the null

hypothesis would be rejected as there was a significant difference between the groups.

The ANOVA results for Grade 8 [F (1,840) = 90. 715, $p <. 001$], also indicated

significant difference in STAAR performance between groups, thus the null hypothesis is

rejected. Effect sizes were calculated using Hedge-g for Grade 5 scores; the results

indicated a large size effect ($g = 0.97$), which revealed that the Grade 3 STAAR English

group outperformed their peers in the Spanish group by nearly 1 *SD*.

The Hedges' g for Grade 8, highlighted a medium effect ($g = 0.67$), which

revealed that Grade 3 STAAR English group continued to outperform the Spanish group.

The results from the ANOVA and Hedges'-g analyses indicated that the English group

persistently outperformed the Spanish group in both time points used in this study (Grade

5, and 8).

Research Question 3: Grade 3 Language and Reading Proficiency as Predictor of

Later Reading Achievement

Two separate linear regressions were conducted to determine the influence of

language proficiency and reading achievement in Grade 3 on later reading performance,

namely STAAR reading in Grade 5 and 8 (Table 5 and 6). The results of the linear

regression for the Grade 5 outcome indicated that approximately 56.2% ($R^2 = .562$) of the

variation in STAAR scores in Grade 5 could be accounted for by TELPAS and STAAR

performance in Grade 3. Examining the regression model results, both students' scores on

TELPAS (B=. 989, t (2) = *11.43*, $p <. 001$) and STAAR performance in Grade 3 ($B=.272$,

$t(2) = 8.56, p < .001$) significantly predicted students' Grade 5 STAAR scale scores.

These coefficients suggest that, after accounting for STAAR reading in Grade 3, for

every unit increase in scaled score above the mean on the TELPAS, students would be

expected to improve nearly one scaled score unit (.989) on the STAAR in Grade 5.

Additionally, after accounting for TELPAS in Grade 3, a one scaled score point above

mean STAAR performance for a student in Grade 3 would predict an increase of .272

scaled scores points on STAAR in Grade 5.

The result of the regression model predicting the Grade 5 STAAR outcome are

provided in Table 5 below.

Table 5

Linear Regression Results for Grade 5

Coefficients a					
Model	Unstandardized		Standardized	t	Sig.
	B	St. E	B		
Constant	420.57	52.29		8.04	.000
Grade 3					
STAAR	.272	.03	.361	8.56	.000
TELPAS	.989	.08	.482	11.43	.000

Note: Dependent variable is scale score Grade 5 STAAR. STAAR= State of Texas

Assessments of Academic Readiness; TELPAS= Texas English Language Proficiency

Assessment System

A second multiple linear regression was used to determine if TELPAS and

STAAR scores in Grade 3 were predictive of STAAR reading performance for students

in Grade 8. Table 6 highlight the results from the linear regression.

The R^2 value of .396 obtained in the model indicated that approximately 39.6% of

the variation in STAAR scores in Grade 8 could be accounted for by TELPAS and

STAAR performance in Grade 3. Examining the results of the regression model, both

students' scores on TELPAS ($B = .794$, t (2) = 7.94, $p < .001$) and STAAR performance

in Grade 3 ($B =. 262$, $t (2) = 7.13$, $p < .001$) significantly predicted students' Grade 8

STAAR scaled scores.

Table 6

Linear Regression Results for Grade 8

Model	Unstandardized		Standardized	t	*Sig.*
	B	*St. E*	B		
Constant	753.49	60.66		12.42	.00
Grade 3 Scaled Score STAAR	.26	.04	.34	7.13	.00
TELPAS	.79	.10	.38	7.94	.00

Note. The dependent variable is the scaled score for Grade 8 STAAR. STARR = State of

Texas Assessments of Academic Readiness; TELPAS = Texas English Language

Proficiency Assessment System.

These coefficients suggest that after accounting for STAAR in Grade 3, for every

unit increase in the scaled score above the mean on the TELPAS in Grade 3, a student

would be expected to improve about .79 scale score unit on Grade 8 STAAR. In other

words, after accounting for TELPAS in Grade 3 one scale score point above mean

STAAR performance in Grade 3 would predict an increase of .79 scale score for STAAR

in Grade 8.

The table header "Coefficients [a]" spans the table.

Chapter V

Discussion

The importance of good reading skills in lower grades and the need of closing the reading performance gap for ELs are well established in the academic literature. The debate of how to meet the literacy and language needs of ELs in bilingual programs are front and center of the bilingual educational models. The literature review highlighted the significant empirical evidence that strong development of literacy skills in both languages in early grades has a substantial impact on reading abilities later in life. The study focus was the reading performance of Hispanic, bilingual students in an inner-city district. This study examined if reading performance and language of testing in Grade 3 played in role in reading performance in Grades 5 and 8 for Spanish-speaking ELs enrolled in an early exit bilingual program. Also, it examined the influence of literacy and language proficiency skills for ELs in Grade 3 in later high-stakes reading assessments. Specifically, can reading performance as measured by STAAR and language proficiencies as measured by TELPAS be used as predictors of later reading performance. The variance in reading performance in TELPAS and STAAR Grade 3 can explain Grade 5 and 8 reading performance.

This chapter contains a discussion of findings that answer the central research questions:

(RQ1): Is there a statistical difference in performance among third-grade bilingual students who took the State of Texas Assessments of Academic Readiness (STAAR) reading test in Spanish versus those who took it in English?

(RQ2): Is there a difference in STAAR reading performance in Grades 5 and 8 for students who took Grade 3 STAAR in English versus Spanish?

(RQ3): How does language proficiency and reading performance in Grade 3 predict reading performance on high stake assessments (STAAR) in Grade 5 and Grade 8?

Discussion of Findings

The importance of reading is well established in the literature, more so the importance of good reading skills in elementary school and its long term impact on a child's future academic success (Connor et al., 2014; Foorman et al., 1998; Juel, 1988). The research conducted in this study examined the longitudinal academic performance of bilingual students. Also, it enriched the debate in bilingual education regarding the interpretation of the relationship between the native language and second language acquisition. At the heart of bilingual education are the roles native language plays in the second language acquisition and the amount, and quality of exposure in the second language to assist in the second language acquisition. The district in this study uses an early-exit model of bilingual education. The early-exit model is centered around the idea of mastering L1 literacy skills at the same time as acquiring language skills in L2, when the purpose of L1 is to transfer language and reading skills in L2. The goal of this research was to examine the role of Grade 3 reading performance and language development among EL bilingual students. It is worth noting that as a whole, the sample of this study showed stability in terms of mobility. There were

Descriptive Statistics: Reading Achievement

The distribution of STAAR reading performance in the three-time points used in this study between study participants and Texas (TX) highlighted a significant reading performance discrepancy. This is reflective of state and national trends in terms ELs reading performance, and it speaks of the continued need to address language and literacy deficits of bilingual students.

As noted, the district in this study uses an early exit model for bilingual programs, where the students typically receive two to three years of native-language, L1 instruction with the purpose to facilitate transition to instruction in English (Kennedy, 2019). The ELs whose data were utilized in this research were served within the bilingual program and had received at least 4 years of bilingual education (kindergarten up to Grade 3); and some of them received up to 6 years. In general, the students displayed performance below the norm (for TX) across Grades 3, 5, and 8. This is reflective of national endemic disparities in reading performance among ELs and Hispanic students. Specifically, in 2019 NAEP reported, there was a 21 point difference in Grade 4 reading between Hispanic and White students. Only 10% of ELs in Grade 4 scored at or above the NAEP proficient, while 39% of students who were not ELs. Grade 4 scored at or above the NAEP proficient level. In eighth grade only 4% of ELs scored at or above the NAEP proficient level in comparison with 36% of non-English learners (NCES, 2019).

It is worth indicating that the G3E achieved at the mean performance level in Grade 8, which was the same level as their state peers in the same grade. Thus, in most cases, it took 9 years of academic instruction for G3E to be at par with the state peers. Collier and Thomas (1995) have shown that it takes longer to develop literacy and language skills needed in academic setting (Cognitive Academic Language Proficiency

or, CALP). It takes at least 5 years for proper development of CALPs and in cases in which the students have lacked proper reading instruction in both language it can take up to 7 years. The natural development of language acquisition and academic language exposure can be factored as a reason of narrowing the differences between the groups, and for the G3E to be at par with their peers in the state.

This performance is reflective of time on task theory (Rosell & Baker, 1996). Time on task theory holds that language acquisition is greatly dependable on the time student spend in L2. The theory suggests that more time students spend hearing, speaking, or studying L2, the higher proficiency level in L2 will be (Rossell & Baker, 1996). In other words, the G3E group had more exposure to English and therefore better language and reading outcomes.

The disparities in reading performance were evident in the distribution of student performance categories on the STAAR. As a group, just over three quarters (78.2%) of students demonstrated passing performance (i.e., performance of approaches, meets or masters) for their Grade. A greater percentage of G3E students (82.2%) passed in comparison to peers who took the assessment in their native language, of Spanish (G3S) (73.2%). This speaks to the idea that many of these students did not have the required literacy development in L1 Spanish able to facilitate the transition of literacy skills in, English (L2). As noted from previous research (Collier & Thomas, 2004; Cummins, 2000; Cummins & Krashen, 2000; Proctor et al., 2010) that strong language and literacy development in Spanish translates in faster English acquisition and better future reading performance.

In contrast, similar percentage of students (~ 33%) from both groups were considered to have met grade level standards in Grade 3 and in fact, the Spanish STAAR group had much higher percentage of students (18.2%) in the masters grade-level expectations category, and G3E had only (5.2%). This indicates that the Spanish group was heterogeneous; with almost one fifth of students (18.2%) demonstrating strong literacy development in L1 and almost half showing much weaker L1 development (half (47% were in the combined did-not-met grade level group+ approaches grade-level group). Proctor et al., (2010) asserted that strong language development in Spanish translates in faster English language acquisition, and that it has a direct impact on reading performance in both Spanish and English. The G3S students who had strong L1 development warrants future research to investigate how they will do in future reading assessments.

Additionally, the G3E group continued to have higher percentages of students meeting STAAR grade-level standards in both Grade 5 and 8. Nearly one half (46.6%) of the G3S group did not pass the Grade 5,STAAR indicating that many had very weak English literacy development and did not have the minimum literacy requirements to be successful in the upcoming grade. A possible explanation is that the district uses an early exit model, and during this particular year, Grade 5 was part of intermediate schools and most of students were served in English classes.

It is also possible that for that for many students they did not have the required literacy skills in L1 to be transferred in L2. As a group, these students had weaker literacy development in L1 in Grade 3 and did not have a strong foundation to transfer in

L2. This is reflective of many previous studies in this area (i.e., Collier & Thomas, 2004; Cummins, 2000; Cummins & Krashen, 2000; Proctor et al.,2010).

The gap in meeting the STAAR standards was very evident between these groups, as majority (87.2%) of the G3E passed STAAR in Grade 5, with nearly half (44.6%) meeting grade-level expectations versus one half (53.4%) passed and (12 %) meets grade- level expectation from the G3S.

Grade 8 performance reflects some of the same trends as Grade 5. There was still a gap in meeting STAAR grade-level expectations between the groups though; the gap was narrowed in Grade 8. Overall, 95.7% of the G3E group passed STAAR versus 84.3% of the G3S. The gap appears to be greater with regards to meets and master grade-level expectations categories. Overall, 61.4% of the G3E group had meet grade-level expectation versus 32.3 in the G3S group. Even though approaches grade level expectation is indicative of passing, this is a clear indication that there are still a considerable number students from the Spanish group that struggle in reading and in need of reading intervention. Almost 60% of student from G3S group (did not pass + approaches grade level) did not have the reading necessary skills to be successful in the next grade and needed academic reading intervention. This speak to the well-documented research that reading struggle are real among ELs and the struggles continue to persist in their educational journey. It reflects the research from Collier & Thomas, 2004; Cummins & Krashen, 2000 that the lack of mastering L1 literacy skills affects long terms literacy and language development in L2. Overall, there was an increase in demonstrated performance, particularly, for the Spanish group between the end of the elementary and the end of middle school. It appears that proficiency in L2 literacy appears to be

increasing. However, the results suggest that there still work to be done for both groups, especially for the Spanish group to close the gap with their state peers.

Research Question 1: Grade 3 STAAR Performance by Language of Testing.

The analysis of performance on the STAAR in Grade 3 indicated that there was a statistical difference between the students who took the Spanish STAAR test and those who took it in English, with the English group demonstrating a higher mean performance. It is important to note that both English and Spanish STAAR reading assessment measure the same reading skills and standards.

The answer to this question is at the heart of debate of bilingual education instructional models. The debate revolves around the idea of the L1 and L2 interaction and the time and exposure needed for L2 acquisition. As previously noted, the district in this study applies an early-exit transitional bilingual model which encourages the use of the native language as foundational tool in English language acquisition.

The transitional bilingual models have been at the center of the discussion for the assimilation nature, devaluing cultural and linguistic needs (Maughamian et al., 2009). The early exit models use L1 merely as tool of transition to L2 and this reflects Cummins idea of subtractive bilingualism. Cummins (2000) idea of additive bilingualism and subtractive bilingualism explains the construction bilingual programs. The subtractive bilingualism is where the student L1 skills are not adequately addressed with notion of more L2 exposure will result in better L2 acquisition. Cummins believed that subtractive bilingualism does not have as many long-term positive outcomes. Cummins advocates for bilingual programs that strengthen both L1 and L2. In pedagogical practices, bilingual student's language development in L1 plays a foundational role in learning L2. The better

reading outcomes in STAAR indicate better literacy development among the G3E group. Past research Cummins, 1981, 2000; Hakuta, & Gould, 1987; Krashen, 1996; Rolstad et al., 2005 have underscored that strong literacy skills play a critical role in reading performance.

The G3S group had lower TELPAS, which is why these students would be taking Spanish STAAR. However, the G3S had weak literacy skills in Spanish, and this transcended in their English acquisition. In other words, the Spanish group was made up of readers struggling in their native language who continued to struggle in English as well. This finding is reflective of past research indicating that literacy skills in L1 play a critical role in L2 acquisition (Cummins, 1981, 2000; Krashen 1996).

In Grade 3, there were more students from the G3S group did better in the masters grade-level expectations category. This is positive note indicates that this subgroup has benefited from the exit bilingual model and they have the necessary skills needed to transfer to L2, and implying that the G3S group had a heterogenous performance in Grade 3, on STAAR. This subgroup warrants future research to investigate how they will do in future reading assessments.

The result of this question indicated a need for the district to consider different bilingual models that will equally foster L1 and L2 development. Additionally, a significant number of students for both groups would require academic reading intervention in the upcoming grade. The early-exit model appears not to give students the needed literacy skills in both languages.

Research Question 2: Group Differences in Grade 5 and 8.

Overall, the findings revealed that students who took the English reading STAAR in Grade 3 had higher mean performance on STAAR for both grades Grade 5 and 8, which highlighted the continued reading performance gap from elementary into middle grades. The study revealed that there was a widening of the gap in reading performance between groups from Grade 3 to Grade 5; the effect size between groups grew from .28 *SD* in Grade 3 to nearly 1 *SD* in Grade 5, in favor of student who had taken Grade 3 STAAR in English. This reflects on the idea that Spanish group did not have the necessary literacy and language skills in L1 to successfully facilitate the transition of the skills of skills in L2. Nakamoto et al. (2007) demonstrated that there is a direct link between early language development in both languages in early grades and reading abilities in later grades. The Spanish group had lower English development and it took longer to have good language and literacy development which likely contributed to the discrepancies in STAAR reading performance in Grade 5.

The greater discrepancy in Grade 5 could be attributed to the fact that this that was the first time for some of the G3S group students taking the STAAR English test. During this particular year, Grade 5 was part of the intermediate schools and majority of students were fully transitioned in English instruction. Yet again, reflect the idea that students did not have the adequate literacy skills in L1 to transfer in L2 which contributed in English STAAR in Grade 5. Nakamoto et al. (2007) underscored that lower grade reading skills particularly, phonological awareness and decoding were significant predictors in reading abilities in both languages. Also, it reflects a well-documented

idea that good readers continue to be good readers and those who struggle continue to struggle (Juel, 1988).

An important finding in this question was that reading gap continued in Grade 8; however, the gap was narrower and difference smaller between the groups in Grade 8. Specifically, the standardized difference in scaled scores between groups decreased to .67 suggesting the differences in literacy skills were more moderate in Grade 8. This may be explained that the Spanish group has had more English language exposure which has assisted in language development. As previously noted, Collier and Thomas (1995) have shown that it takes at least five years for proper development of CALPs and in cases where the students have lacked proper reading instruction in both language it can take up to seven years. Therefore, the academic language exposure and development of language acquisition have contributed to narrowing the differences between the groups.

The finding that reading performance in lower grades is an indicators of later reading performance is consistent with past research (Connor et al., 2014; Foorman et al., 1998; Juel, 1988). Furthermore, this finding is important because strong reading skills and development in lower grades are critical in future academic and life success. The academic literature is very clear that children who struggle in reading in lower grades have an increased chance to repeat a grade, are less likely to get high school diploma, more likely to become teen parents, earn less, and enter the juvenile justice system (Connor et al., 2014).

Research Question 3: Grade 3 Language and Reading Proficiency as Predictor of Later Reading Achievement

The results indicated there is a connection between language proficiency and reading performance. Students' language proficiency and reading performance in Grade 3 were strong predictor of Grade 5 and 8 STAAR reading outcomes. This conclusion is reflective to the findings of Nakamoto et al. (2007), Proctor et al. (2010), and Reese, et al. (2000) that there is a clear and direct link between strong language development in early grades and reading performance later. Reese et al. (2000) underscored that successful literacy development in both English and Spanish in lower grade can serve as a predictor in future reading success. This highlights the need to address language and literacy development in both languages. Reese et al. (2000) highlight some of the undermining factors in poor language and literacy development for Bilingual Spanish speaking students: (a) minimal phonemic awareness; (b) poor reading decoding skills; (c) weak literacy development in Spanish in lower grades; (d) limited vocabulary development in both Spanish and English; and, (e) late exposure to English language. This finding highlights the importance of strong language and literacy development in lower grades in both Spanish and English. This enforces Krashen and Cummins's (2000) idea that strong literacy and language development in L1 directly translate in successful L2 acquisition and long-term advantages ranging from positive cognitive benefits, preserving linguistic, cultural needs, and boosting academic performance higher.

The findings from this research revealed that reading performance in lower grades matters and can be used as predictor for future reading success. In addition to, the language development and literacy performance are connected. Language proficiency

measured by TELPAS along with STAAR reading performance in Grade 3 can be used as indicators of future reading performance. Pedagogically, the results suggest the need of developing bilingual programs that equally foster both languages.

Implications for Practice

With a substantial increase in the numbers of English language learners in schools, particularly in urban school setting, school leaders need to meet the needs of ethnically and linguistically diverse students. This is especially true for Hispanic, Spanish-speaking students because they represent a fast-growing student population. The findings from this study lead to four suggestions that can assist school leaders to meet the needs of bilingual, Spanish-speaking ELs: (1) literacy and language skills in Grade 3 are key indicators of in future reading success; (2) there is need to equally foster the literacy skills in both Spanish and English; (3) STAAR performance in Spanish, for Grade 3 should not be the only indicator on literacy proficiency and how well students will perform in English in later grades; and (4) teachers need to have ongoing formative assessment to understand the student instructional needs.

Additionally, the one size fit all model may not properly address the need of all students. Considering that there are many factors influencing early literacy in both languages it would be beneficial to have a variety of bilingual programs. For example, some ELs in bilingual programs may take longer to master the L1 and L2 literacy and language skills, therefore it highlights the need of not rushing the student exiting the bilingual instruction.

The finding of this research mirror some of the findings from the National Literacy Panel for Language Minority Children and Youth. This report provides

scientifically proven reading methods and what are the most critical parts of reading pedagogy for language-minority children. The National Literacy Panel for Language Minority Children and Youth highlights that effective reading instruction centers around explicit instruction and systematic instruction in five essential components of early reading instruction phonemic awareness, phonics, fluency, vocabulary, and reading comprehension. As noted previously, the research is very clear that successful bilingual models must foster early literacy and language skills in both languages. School leaders need to craft a literacy program that reflects on the recommendation from this report and a bilingual program that addresses the linguistic needs for both languages.

Implications for Further Research

To expand on the findings from this study, further research is recommended on this topic. The study that was focused on a very specific target of Hispanic, bilingual students who were continually enrolled in an urban district bilingual program. A longitudinal study of high school performance of this subgroup would enrich the academic literature not only the importance of reading but also the educational impact of long term ELs. Additional research is needed to evaluate how this subgroup of ELs compares with other ELs of the same demographic that are enrolled in different bilingual programs. It would be particularly interesting, and it would help address some of the bilingual education debate if research is conducted to determine which bilingual education model has the most optimal outcomes in student academic success. Also, evaluating data on the amount of time receiving instruction and intervention in L1 and L2. Another area of future research to help this group of students would be evaluating and examining the reclassification practices among bilingual students. In other words,

how do TELPAS performance indicators impact the reclassification and program availability in upper elementary grades?

Limitations

It is important to keep in mind that the findings from this study should be interpreted under the light of several limitations. The limitations of this study range from demographic sample characteristics, the variability in bilingual program implementation, and parents' involvement. The demographic sample of this research exclusively represented bilingual students in Title One schools within an urban school district. The sample excluded bilingual students served under special education due to the small number of students and bilingual students who might have been initially enrolled in the bilingual program beyond kindergarten. It is worth noting, that as a whole, the sample had some stability in terms of education received within the same district. It is a positive note that a significant number of students remained in the district until Grade 8, and they had been exposed the same reading programs. However, the study did not have access as to whether there was mobility within different schools of this district, which may have also impacted the reading performance.

This study did not consider many other variables that impact student performance. It is well documented that there are cognitive factors influencing reading comprehension such a background knowledge, strong phonemic awareness, vocabulary, exposure to critical thinking, and reading strategies. There are many other variables affecting students reading performance. Limitations include the following: (a) teacher training in bilingual programs and English teaching methodology; (b) the study examined only one outcome-performance in high stake reading assessment; (c) it did not consider other sources such

as district formative, an screening assessment; (d) teachers years of experience in the classroom were not considered; (e) parent education and involvement;(g) limited choices in programs that schools offer;(g) size of the school was not considered; and (h) at-risk factors for students were not taken into account. Finally, the study was conducted with students in Texas, only applies to the STAAR testing and cannot be generalized to students in other states to other state assessments.

Conclusion

Bilingual education remains a popular program in the state of Texas. Hispanic ELs as the fastest-growing student population continue to struggle in meeting state standards in reading assessments. This research examined statistical trends among bilingual, Spanish-speaking students and it revealed that literacy and language skills in lower grades are a good indicator of future reading performance. The poor performance in Grade 3 continues in Grade 5 and 8. The research has established that good reading skills in Grade 3 have an impact on future high-stake assessments. Additionally, the need to have bilingual reading programs that equally promote literacy skills in Spanish and English. It is critical for school leadership to prevent reading struggles in elementary school. The school districts need to create educational programs that will assist students who struggle in reading lower grades**.**

Chapter VI

Action Plan

The problem of practice is low reading performance among English learners, specifically bilingual students in inner-city schools in reading state assessments. Considerable empirical evidence indicates that students identified as economically disadvantaged, Hispanic, and English Learners (ELs) struggle in reading and trail behind in reading performance throughout their schooling (Hakuta, & Gould,1987; KewalRamani et al., 2007; Young et al., 2012). It is critical for schools to analyze factors and prevent reading difficulties among economically disadvantaged, Hispanic, and English Language Learners. Bilingual Education is often used as a scapegoat for lower reading performance among the Hispanic student population. The literature review provided clear evidence empirical on the benefits of bilingual education. Despite the well-documented advantages of bilingual education, bilingual Spanish speaking students in inner-city elementary schools are struggling in state reading standardized assessment. The literature review and results from this study highlighted the development of good literacy and language skills as the key to reading success for bilingual students. The need for strong early language and literacy development in L1 and L2. The literacy struggles in L1 influence reading performance in L2.

The research assessed the longitudinal impact of bilingual programs in reading state assessments. Specifically, whether statical differences existed between students that took the Spanish language STAAR versus those who took the English in Grade 3, how these two groups performance compares in Grade 5 and 8. Additionally, how does reading performance and language proficiency in Grade 3 influence future reading

performance in state assessments? This research enforced the literature review findings that early reading struggles are especially real among economically disadvantaged, minority, and English learners and have an impact on future reading performance. There is a need for change to better reading performance among bilingual, inner-city Hispanic students. Also, closing the reading achievement gaps for this group of students. This research aims to inform and have an impact among educational leaders to act in addressing reading gaps among Hispanic, bilingual students.

In a world of inbox solutions, quick-fix ideas, endless Pinterest ideas, Facebook groups, Teachers Pay Teacher, Twitter feeds, and a constant influx of opinions, ideas on the teacher's fingertip, educators must be prudent in their decision making and analyzing problems of practice (Mintrop, 2016). Every educational organization presents a unique set of challenges when it comes to the implementation of new ideas. Reforming and implementing new programs that will guarantee student success and equitable education access have become the driving themes in schools. We cannot fix a broken system without knowing what broke the system and how to fix it using a different tool or the same tool. Merriam and Bierema (2014) emphasize that adults bring to the table different set of challenges when it comes to learning and implementing new things such as life and educational experience, preconceived assumptions, complex nature for motivation, and unique perspectives.
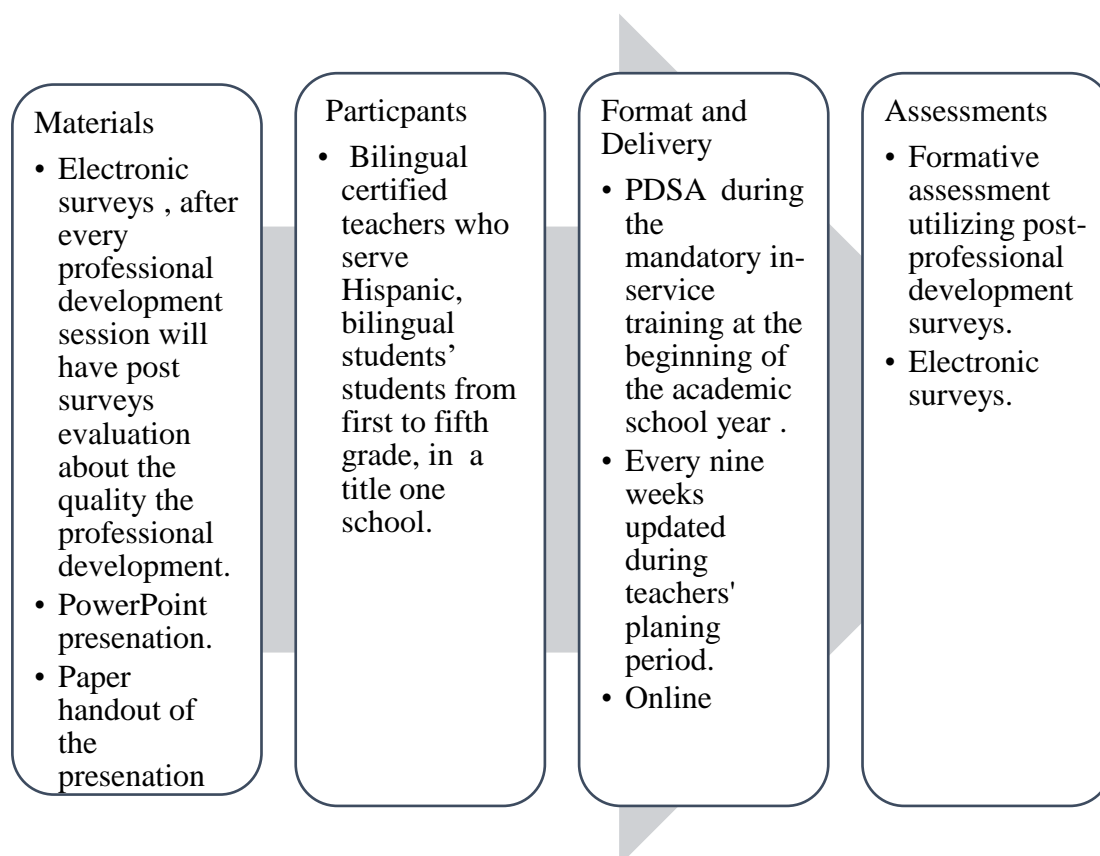
PDSA Framework

The author will use the plan to do-study- act cycle (PDSA) approach based on the work of Bryk et al. (2015). PDSA is a method to guide inquiry for improvement research in education. It is a tool for educational leaders to guide learning at different stages of the

implementation. The starting point of any change-reform needs to be the evaluation of the educational practices. There is considerable evidence that Hispanic, bilingual, ELs struggle significantly in standardized reading tests in comparison with white students. The table below summarizes action plan components.

Figure 7

Action Plan Components

Materials	Particpants	Format and Delivery	Assessments
• Electronic surveys , after every professional development session will have post surveys evaluation about the quality the professional development. • PowerPoint presenation. • Paper handout of the presenation	• Bilingual certified teachers who serve Hispanic, bilingual students' students from first to fifth grade, in a title one school.	• PDSA during the mandatory in-service training at the beginning of the academic school year . • Every nine weeks updated during teachers' planing period. • Online	• Formative assessment utilizing post-professional development surveys. • Electronic surveys.

Content

The first survey will address teachers' perceptions about the state of bilingual education in the district and the bilingual students' educational needs. The PowerPoint presentation will cover data from teacher surveys and current data of bilingual, Spanish speaking students' performance in state and district assessments. The longitudinal performance of this subgroup in reading and how they compare with other demographics

in the state and national reading performance. The author will present a short synopsis of the literature review about bilingual education, and the interaction between L1 and L2 in language and literacy development. The presentation will devote a part to the recommendations from the National Literacy Panel on Language Minority Children and Youth. Lastly, empirically validated teaching methods and techniques for bilingual Spanish speaking students.

Format. The PDSA will take place during the mandatory in-service training at the beginning of the academic school year and meeting every week to discuss the progress. The PDSA will be using a nine-week timeframe. The reason for using nine-week time frame is because every nine weeks, the district has a reading benchmark test to evaluate reading performance among its students. Also, during PLC's every nine weeks to evaluate the outcomes of this project.

Delivery. It will be online, and surveys will be delivered via the district email platform and electric services.

Indented Audience. The participants of the PDSA will be bilingual elementary reading teachers that serve Hispanic bilingual students in the district bilingual programs. To be qualified for the PDSA, the teachers must serve Hispanic, bilingual students' students from first to fifth grade, in title one schools, and they must have the state of Texas bilingual certification.

Assessments. To assess the quality of the professional development the authors will be using a formative assessment utilizing post-professional development surveys. The data will be used to decide the quality of the delivery and if the professional development met its objectives.

Plan-Do-Study-Act Dissemination Plan

Plan stage

It will require narrowing the problem of practice. In this stage, the author will

assess teachers' perspectives about bilingual education and longitudinal reading scores

among bilingual students. The teachers' views will be determined at the beginning of the

academic school year, during state-mandated professional development, preferably

during the first day of in-services. The survey will take approximately 10-15 minutes and

will be delivered via email using the district email system. The survey will be part of the

required initial training that teachers partake at the beginning of the school year. The

state of bilingual education will be evaluated by assessing the teacher's perspectives

toward the current state of bilingual education using The Concern Based Adoption Model

(CBAM). The CBAM is a tool that addresses one of the most critical parts of school

reform, assessing the implementation of innovations or reform initiatives (George et

al.,2006). The philosophy cornerstone of CBAM is that the change process in an

organization that cannot happen until the individuals within the organization change.

Teachers are the primary driver for any educational change. Teachers are the main actors

to guarantee the success of any new program implementation. Before we start to

demolish or reapply other bilingual programs, and we must assess teachers' perceptions

about bilingual education and reading measurements of attitudes about bilingual

education. This survey will (see sample statements in Figure 8) measure teacher's

perceptions about bilingual education program and their perceptions concerning the

longitudinal impact of bilingual programs on reading success;

- Early or late-exit preferences in transitional bilingual programs

- Perceptions about the importance of reading

- How language proficiencies levels and reading instruction influence future

  reading performance.

Some of examples of the survey question would be:

Figure 8

Survey Response Scale

Statement	Response Scale					
1. I am concerned about the state of bilingual program in my school.	0	1	2	3	4	5
2. Transitional bilingual education primary objective is to help ELs learn English.	0	1	2	3	4	5
3. Transitional bilingual education primary objective is to equally foster both Spanish and English.	0	1	2	3	4	5
4. Reading performance in Spanish influences English acquisition.	0	1	2	3	4	5
5. Reading is the cornerstone of academic success	0	1	2	3	4	5

The Key Response Scale				
0	1	2	4	5
Irrelevant	Not true to me now	Somewhat true of me now	True to me now	Very true to me now

Note. The survey is based on the Concern Based Adoption Model. Figure 8 highlights the scale measurement to be used in the survey about teacher perceptions about bilingual education.

Do

Create a strategic plan on how to addresses the problem of practice. Creating

professional development (PD) series that will address the following themes: (a)

Analyzing and presenting data trends in reading performance among bilingual Spanish

speaking students in the district. Presenting and examining data gathered from the teachers' perceptions survey for bilingual education and longitudinal reading performance data for bilingual, Hispanic students; (b) presenting and informing teachers about research findings of the benefits of bilingual education and recommendation for successful bilingual program implementation; (c) provide Kennedy (2019) review on existing literature on bilingual education programs, and it highlights recommendations on best practices for bilingual education; and (d) recommendation from the National Reading Panel and National Literacy Panel on Language Minority Children and Youth. Both reports highlight that effective reading instruction centers around explicit instruction and systematic instruction in five essential components of early reading instruction phonemic awareness, phonics, fluency, vocabulary, and reading comprehension (The National Reading Panel, 2000).
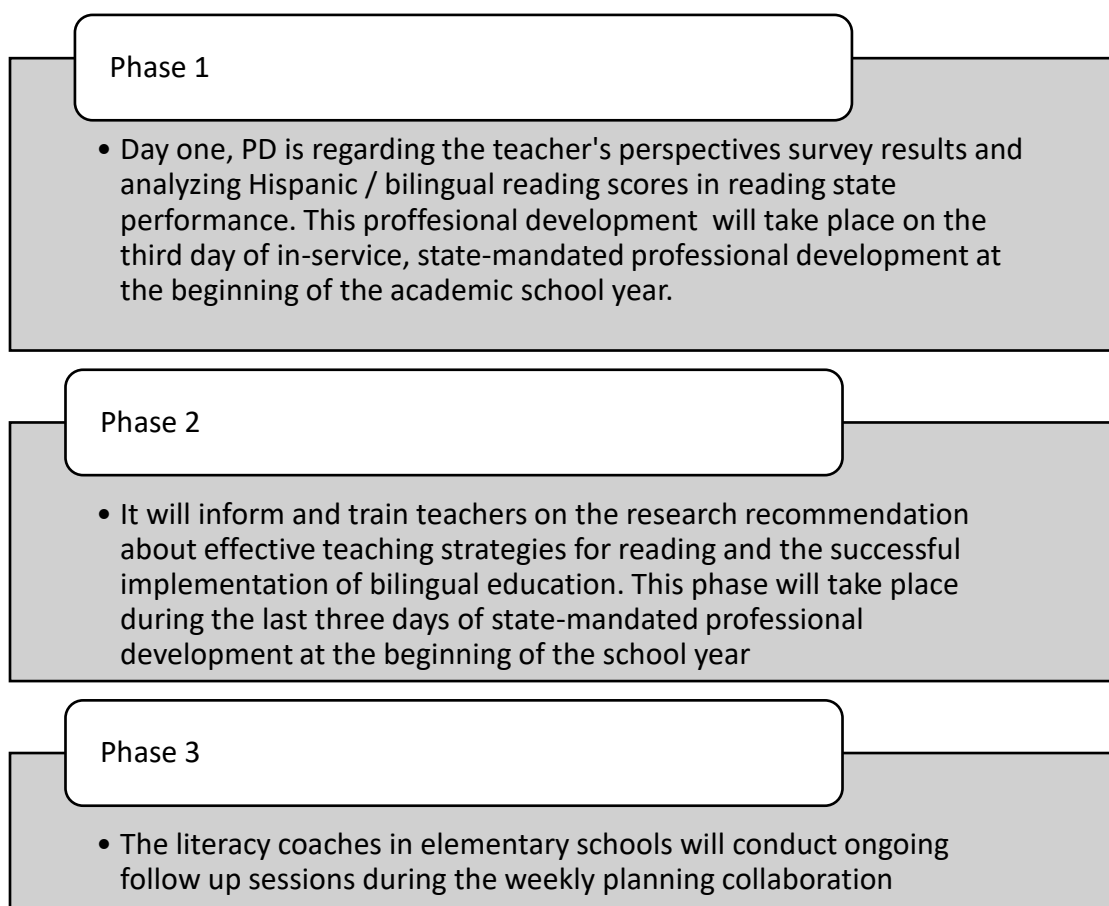
Delivery

The delivery stage will focus on professional development and follow up session. The professional development (PD) will reflect the two central themes of successful PD: (a) teachers should be actively learning, and (b) the strategies for helping teachers enact learned concepts learned in classroom setting. (Kennedy, 2016). The follow-up sessions will aim to have (a) ongoing coaching about the implementation of information from PD; (b) ongoing collaboration between literacy coaches and reading teachers; and (c) assessing and evaluate the application of the data from PD. Every professional development will have an evaluation piece via an anonymous survey using district online resources. The post PD survey will address two parts: (a) the quality of delivery and materials, and (b) willingness to implement the information and resources presented in

the professional development. The delivery do-stage will be in three phases. The figure 9, details the intentions of each phase.

Figure 9

Delivery Phases

Phase 1

- Day one, PD is regarding the teacher's perspectives survey results and analyzing Hispanic / bilingual reading scores in reading state performance. This proffesional development will take place on the third day of in-service, state-mandated professional development at the beginning of the academic school year.

Phase 2

- It will inform and train teachers on the research recommendation about effective teaching strategies for reading and the successful implementation of bilingual education. This phase will take place during the last three days of state-mandated professional development at the beginning of the school year

Phase 3

- The literacy coaches in elementary schools will conduct ongoing follow up sessions during the weekly planning collaboration

Study

A detailed analysis will take place, examining what is working, what is not working, and why. Also, analyze data from the district's reading benchmark test, specifically reading scores from elementary bilingual students. The data from district reading assessment will be used to see if the PD had an impact on student success. Additionally, the analysis will focus on the group of students that have poor reading

performance and creating specific reading intervention plans to address the reading needs in both languages.

Act

Making adjustment based on data. The next stage will be taking place during the second nine weeks. During this stage, the efficiency of the strategic plan is evaluated, the areas of strengths and weaknesses of the plan will be addressed. A system to track students' progress in both intervention of reading program, reading performance in district's benchmarks and other formative assessment will be created. The tracking system with be used to make specific adjustment for the implementation and conclude future applications.

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