

*Reading AND ENGLISH Achievement of Fourth Grade English Language Learners in a
TWO-WAY Dual Language Program and a TRANSITIONAL Bilingual Program*

A Record of Study

by

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ABSTRACT

According to the U.S. Department of Education, National Center for Education Statistics as of 2017 the percentage of English language learners enrolled in U.S. public schools held steady at around 5 million or 10.1 % of the entire student population. The continued growth of ELL student populations in Texas has also increased the demand for Bilingual/English as a second language instructional programs as 1,129,558 students are currently enrolled in these programs for the 2019-20 academic year. It is vital for scholars and educators to reach a consensus through research and educational practices on which bilingual education program model is more favorable for developing strong literacy skills in L2 and increase academic levels in all content areas for English learners.

The primary interest of this study was to providing insight on the student achievement levels of English learners in a dual language model compared to a transitional bilingual program using state assessment data. More specifically, to determine if there are differences in passing rates on the English version of the Reading STAAR 2018-2019 exam between fourth grade ELLs in a Two-Way dual language program and a transitional bilingual program. The second purpose of my study was to determine if there are differences in the percentages of fourth grade ELLs in a Two-Way dual language program and a TBP scoring on the meets and masters grade level on STAAR Grade 4 Reading Assessment.

In order to compare the differences in performance between the student groups of the 12 schools, an ANCOVA was applied. The ANCOVA test allowed me to

simultaneously compare the STAAR results, by way of the scaled scores, of fourth grade students from the 12 participant schools to determine whether a relationship exists between them. The findings suggested that students in the DL group outperformed TBP significantly in terms of satisfying passing performance standards of Approaches or above in the post-reading assessment, STAAR Reading Grade 4. The student scaled scores of the dual language immersion program on Reading Grade 4 STAAR was higher than that of the transitional bilingual program.

DEDICATION

I proudly dedicate this dissertation to my mother and father. To my mother for never giving up on me when I made things tough growing up. Thank you for the earliest memories of you walking me to elementary school reviewing the multiplication tables and for our traditional lunches at Taco Cabana after every last-day-of-school to celebrate. Without your love, support, and firm hand I would not have made it very far.

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Contributors

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The data analyzed for Chapter 3 and 4 was provided by Houston ISD, Research and Accountability Department. All other work conducted for the dissertation was completed by the student independently.

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NOMENCLATURE

BEA	Bilingual Education Act
BICS	Basic Interpersonal Communicative Skills
CALP	Cognitive Academic Language Proficiency Skills
EEOA	Equal Educational Opportunities Act
ELPS	English Language Proficiency Standards
ESL	English as a Second Language
ELL	English Language Learner
ESEA	Elementary and Secondary Education Act
ESL	English as a Second Language
LESA	Limited English-Speaking Ability
LPAC	Language Proficiency Assessment Committee
L1	First Language
L2	Second Language
NCLB	No Child Left Behind Act
STAAR	State of Texas Assessments of Academic Readiness
TAKS	Texas Assessment of Knowledge and Skills
TBP	Transitional Bilingual Program
TEA	Texas Education Agency
TEKS	Texas Essential Knowledge and Skills
TELPAS	Texas English Language Proficiency Assessment System

TWI

Two-Way Immersion

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CHAPTER II

INTRODUCTION

In fall 2016, 17.2% of students in Texas' public schools were identified as English language learners (ELL) (U. S. Department of Education, National Center for Education Statistics, para. 2). The percent of ELLs, students for whom English is not their dominant language, has risen dramatically in recent decades, especially when compared to the increase for the general student population during the same period. The majority of these students come from families where the dominant language spoken is Spanish (Kim, Hutchison, & Winsler, 2015). These students have the opportunity to participate in programs to help them attain English proficiency and meet the same academic standards all students in Texas are expected to meet. This is a unique challenge, since ELLs, partly due to the increased probability of living in poverty and having parents with low education levels, often struggle in school, performing lower than their English-speaking counterparts in coursework and high-stakes testing (Kim, Hutchison, & Winsler, 2015, p. 236). Thus, effective instruction for ELLs is desired to ensure they are equipped with the skills necessary to achieve academic success (Kim, Hutchison, & Winsler, 2015; Sanchez, Garcia, & Solorza, 2018).

Bilingual education is designed to address the unique instructional needs of ELL students. Bilingual education is the use and instruction of two languages in part or all the school curriculum: it is the use of two languages in classroom instruction (Rodriguez-Tamayo & Tenjo-Macias, 2019). Bilingual education, as a moniker, refers

to services and program models provided to ELLs. These models, which have developed over time, include programs; whereby, ELL students are mainstreamed into all-English classrooms, programs where ELLs receive instruction in both English and Spanish, and programs in which all students, regardless of language dominance, are instructed in both English and Spanish (Kim, Hutchison, & Winsler, 2015; Rodriguez-Tamayo & Tenjo-Macias, 2019; Sanchez, Garcia, & Solorza, 2018)

The Transitional Bilingual Program (TBP), the model where students are mainstreamed into an all-English classroom, is the most common language program for English language learners (ELL) in Texas (Arroyo-Roman, 2016; Whitacre, 2015). Extensive research has been conducted on the methods of the program as well as the reading achievement levels of ELL students in TBP classrooms compared to mainstream students. These programs do not develop or maintain bilingualism, since students are quickly assimilated and transitioned into the all-English setting to meet the state's goal to have them speaking, reading, writing, and comprehending the English language (Arroyo-Roman, 2016, p. 276). Recently, however, there is an emergence of dual language classrooms in the state; district and campus-level administrators are looking closely at these to assess their efficacy. While studies have indicated that dual language programs are especially effective in promoting language proficiency and academic achievement, districts and schools are interested to identify which type of bilingual program provided the best results in closing the achievement gap of ELL students (Kim, Hutchison, & Winsler, 2015, P. 242). The differing perspective on TBP and dual language programs, and how students perform academically in a district where both

models operate are the focus of my study; how do students' performance on the state mandated assessment compare.

Statement of the Problem

In 2015, 63,665 students classified as ELL in fourth grade took the English reading STAAR exam, earning a passing rate of only 58% (TEA, 2015). For ELL students to be prepared for the high rigor of the STAAR exam, schools must ensure they are in the appropriate language program that provided them with the linguistic tools needed to succeed. Exploring the types of programs available to assist ELL students could support district leaders in determining what the most appropriate language program for their district would be. It is crucial that a comparison of programs is made to aid in the decision-making process regarding a language program that better meets the needs ELL students (Whitacre, 2015). During the 2013-2014 school year, 2,208 ELL students in the state of Texas were not receiving services in a language program, or from a certified teacher trained in English as a Second Language (ESL), or bilingual instruction (U.S Department of Education, 2014). As Crawford (2004) stated, "It should be of no surprise that these students are at risk of dropping out" (p. 14).

Whitacre (2015) stated, "The most widely recognized and used language program for ELL students is the transitional bilingual program. A primary goal of bilingual education is English language development using the student's first language with the expectation that students move out of the transitional program in approximately three years and be able to function in an English-only classroom" (Whitacre, 2015, p. 22). According to the 2015 reading proficiency results of the National Assessment of

Educational Progress (NAEP) fourth grade ELL students scored an average of 189 compared to 225 for English speaking students (NCES, 2015). With the transitional bilingual program being the most widely used program for ELL students in Texas, the low performance of these students indicates that an in-depth look is required to determine if this program assisted these students in closing the performance gap. While the majority of researchers indicate the benefit of dual language implementation in areas with high ELL students very little research exists in the comparison of dual language programs to the TBP (Kim, Hutchison, & Winsler, 2015, P. 243).

Significance of the Study

The significance of my study is providing insight on the achievement of ELL students in a dual language model compared to a transitional bilingual program, that does not require them to be immersed with English speaking students. Estrada, Gomez, and Ruiz-Escalante (2009) recommended that schools all over the United States, particularly those serving Latino students, implement a dual language program. The results of this study may be utilized to determine if this is the best approach to serving the needs of ELL students in a school where Two-Way dual language is not possible. District leaders can decide if the transitional bilingual program would be most beneficial for ELL students in an all-non-native English-speaking setting. Existing research (Martinez, 2014; Young 2012) compares the types of language programs for ELL students by utilizing the *Texas Assessment of Knowledge and Skills* (TAKS) student performance data. The TAKS was replaced by the *State of Texas Assessments of*

Academic Readiness (STAAR) in 2012. There is a need for research that utilizes STAAR student performance data, which is done in this study.

Purpose of the Study

The purpose of my study is twofold, as applicable to one urban school district. First, I determined if there are differences in passing rates on the English version of the reading State of Texas Assessments of Academic Readiness (STAAR) exam between fourth grade ELLs in a Two-Way dual language program (DL) and a TBP. The second purpose of my study is to determine if there are differences in the percentages of fourth grade ELLs in a Two-Way dual language program and a TBP scoring on the Meets and Masters Grade Level on English Reading STAAR.

Research Questions

The research questions for my study are as follows:

1. To what extent do differences exist on the cumulative performance standards and scaled scores on the fourth grade English reading STAAR for ELLs in a Two-Way dual language program and a TBP?
2. What differences exist in the percentages of ELLs in a Two-Way dual language program and a TBP scoring at meets and masters grade level on the fourth grade English reading STAAR?

Research Design

This is a quantitative study. I utilized a quasi-experimental design to conduct the study. According to Gibbons and Herman (1997), quasi-experimental is best suited for use when the researcher cannot use random assignment. The design is also suited for

comparison of an outcome measure, such as the two groups of students, those enrolled in TBP and Two-Way Dual Language, and their outcome on the STAAR. The study used the 2018 STAAR data for fourth grade Reading and English course assessments. I have no control over the STAAR data and which students were placed in which program; these conditions meet the criteria for a comparative research design as described by Mills and Gay (2016).

Conceptual Framework

The study is situated in *The Multifaceted Nature of Language Learning and Teaching* framework developed by *The Douglas Fir Group* (2016), a framework that addresses second language acquisition (SLA). The framework is the result of intensive collaboration among a group of 15 scholars with different theoretical roots.

The phenomenon of second language acquisition (SLA) is as old as humanity but it has been catapulted to a new dimension in the 21st century (p. 20). Increasingly, numerous and more diverse populations become multilingual later in life, either by choice, forced circumstances, or a mix of reasons. They must learn to negotiate complex demands and opportunities across their languages, which requires integrating the dynamics of learning a second language along with a variety of socioemotional, sociocultural, sociopolitical, and ideological factors (p. 21).

The framework encompasses a growing body of theories and research, represented by a model including three levels of mutually dependent influence. The model represents the integrated complexity of second language (L2) learning, and suggests it is an ongoing process that begins at the micro level of social interactions and

activity. The social activities result in recurring contexts of use, which contributes to a development of a multilingual repertoire.

The social activities and engagement in these contexts are shaped by particular sociocultural institutions and communities. Importantly, the institutions and communities are characterized by pervasive social conditions, which provide or restrict access to certain types of social experiences. Finally, there are large-scale ideological structures with “particular orientations toward language use and language learning” (p. 25). These particular orientations, experienced by instruction and literacy, are sources of L2 learning, and the structured knowledge about them has potential to improve the learning experiences of students who embark on the journey of additional language learning in educational settings (p. 30). They shape decisions on which language is valued, how it is used in community settings, policy, and the educational opportunities that are made available to learn, use, and maintain them (p. 33). Ultimately, how students learn a second language, what they learn, and how its mastery is assessed is driven by the elements that comprise this, the multifaceted language learning framework, and situates how bilingual education operates in the public-school setting. I believe this framework appropriately fits my study, which compares second language acquisition outcomes as assessed through two different bilingual education models.

Limitations

The first limitation is the study is being conducted with the reading and performance standards of Texas Education Agency and therefore cannot be generalized

for the entire nation. Secondly, the data being collected is for a single academic year and cannot indicate growth for students in either program.

Delimitations

The first delimitation of this study is that reading proficiency is comprised of multiple facets, such as fluency, comprehension, and vocabulary, which can be assessed using various tools. The focus of this study is only on reading comprehension using the STAAR exam for measure. The second delimitation is the data source being from a single grade level for a single academic year in six Texas public schools. The third limitation of this study is ELL data not being filtered for students in the special education program, which may affect student success rates on the STAAR.

Assumptions

This study is based on three assumptions: (a) the data collected from the state-wide STAAR report is accurate and the schools maintained testing integrity throughout; (b) schools implemented their Two-Way dual language program and TBP with fidelity and followed the correct methodology in the delivery of the instruction and implemented the appropriate linguistic accommodations during STAAR testing; and, (c) students performed to their utmost ability on the STAAR test to measure their aptitude accurately.

Organization of the Study

This dissertation is composed of five chapters. Chapter I contains the background of the study, purpose, problem and significance, definitions of terms, conceptual framework, research questions, limitations, delimitations, and assumptions. Chapter II

comprises a review of literature as it relates to this study. In Chapter III I presented my methodology, which includes the participants, data collection, data analysis, reliability, and validity. Chapter IV includes a discussion of the findings of my study that are included. Chapter V presents a summarization of the study, implications, and recommendations for future research.

Definition of Terms

The terms used in the context of this dissertation study are as follows:

Dual Language Program (DL)

In these program models, two primary languages are used simultaneously to teach language and content to students in the classroom setting (Gonzalez-Carriedo & Esprivalo Harrell, 2018).

50/50 Two-Way Dual Language Program

The 50/50 Two-Way Dual Language model requires students to be mixed in a split class among English Language Learners and native English speakers. This design does not call for instruction in each subject area in both languages, instead it requires that all learners, regardless of language background learn certain subjects in only their second language and other subjects in only their first language (Gomez, 2000).

50/50 One-Way Dual Language Program

The 50/50 One-Way Dual Language model does not require students to be mixed in a split class among English Language Learners and native English speakers. One-Way classrooms are composed of only ELL students. This design does not call for instruction in each subject area in both languages, instead it requires that all students learn certain

subjects in only their second language and other subjects in only their first language (Gomez, 2000).

English-Language Learner (ELL)

According to the National Center for Educational Statistics, ELL is a term used to describe students who are not native English speakers and are in the process of acquiring academic English language skills and knowledge (NCES, 2016).

English as a Second Language (ESL)

English as a Second Language (ESL) is also a model of Bilingual Education. In this program, academic instruction is provided to ELLs exclusively in English. Although content areas and concepts are being presented in English, teachers often use educational strategies to facilitate comprehension in the students (Sheffield, 2007).

Mainstream Student

A mainstream student is generally defined as a student who is enrolled in an all-English classroom setting without linguistic or special education modifications (Enright, 2011).

National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress is the largest nationally representative and continuing assessment of what students in the United States know and can do in various subject areas. Paper-and-pencil assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, U.S. history, and in Technology and Engineering Literacy (TEL) for students in 4th, 8th, and 12th grade. Since NAEP assessments are administered uniformly using the

same sets of test booklets across the nation, NAEP results serve as a common metric for all states and selected urban districts. The assessment stays essentially the same from year to year, with only carefully documented changes. This permits NAEP to provide a clear picture of student academic progress over time (NCES, 2015).

STAAR Fourth Grade Reading Passing Rate

The State of Texas Assessments of Academic Readiness has three levels of performance students can achieve on the fourth-grade reading exam. If a student earns a scaled score of 1434 on the reading STAAR test, the score indicates a standard passing rate also known as the approaches grade level performance standard. Approaches grade level signifies that the students satisfy the following: likely to succeed in the next grade or course with targeted academic intervention and exhibit the ability to apply the assessed knowledge as well as skills in familiar contexts (TEA, 2017a, 2019b). A student receiving a score at or above the standard passing rate demonstrate a sufficient understanding of the assessed curriculum (TEA, 2016).

STAAR Fourth Grade Reading Meets and Masters Passing Rate

The State of Texas Assessments of Academic Readiness has two levels of high-performance students can achieve on the fourth-grade reading exam. If a student earns a scaled score of 1550-1632 on the reading STAAR test, the score indicates a Meets Grade Level or passing rate. Meets Grade Level signifies that the students satisfy the following: students have a high likelihood to succeed in the next grade or course with some targeted academic intervention, exhibit the ability to think critically and apply the assessed knowledge as well as skills in familiar contexts. When a student earns a scaled score of

1633 or above the score indicates a masters grade level or passing rate. Masters grade level signifies that the students satisfy the following: students are expected to succeed in the next grade or course with little or no academic intervention, exhibit the ability to think critically and apply the assessed knowledge as well as skills in varied contexts (TEA, 2017a, 2019b). Students receiving a meets or masters passing rate demonstrate a thorough understanding of the assessed curriculum (TEA, 2016).

STAAR Spanish Third Grade Reading Passing Rate

The State of Texas Assessments of Academic Readiness has three levels of performance students can achieve on the Spanish third grade reading exam. If a student earns a scaled score of 1318 on the Spanish Reading STAAR test, the score indicates a standard passing rate also known as the approaches grade level. If a student earns a scaled score of 1444-1531 on the Spanish Reading STAAR test, the score indicates a Meets Grade Level passing rate. When a student earns a scaled score of 1532 or above the score indicates a Masters Grade Level rating. Students receiving a Meets or Masters performance standard rating demonstrate a thorough understanding of the assessed curriculum (TEA, 2016, 2017a, 2019b).

Texas Assessment of Knowledge and Skills (TAKS)

Released in 2003, the TAKS was a criterion-referenced achievement tests designed to measure the extent to which a student has learned The Texas Knowledge and Skills Standards (TEKS) and is able to apply the defined knowledge and skills at each tested grade level. Students began taking the TAKS test in 3rd grade until 12th grade. The TAKS was replaced by the STAAR test beginning in 2012 (TEA, 2016b).

Traditional Bilingual Program (TBP)

The Traditional Bilingual Program (TBP) is a common model of Bilingual Education. Also known as the Transitional Bilingual Program, it is available most often at the elementary grades. The transition to English from the home language is usually completed by the third grade (early exit); however, some districts extend it to the fifth or sixth grade (late exit). Although many variations exist, the major purpose of the TBP is to gradually transition English Language Learners (ELLs) to full academic instruction in English (Sheffield, 2007).

Summary

The chapter introduces the study. It provides the backdrop against which the problem to be addressed, the study's significance, and the purpose of the study. The research questions to be addressed are presented, as well as the conceptual framework that situates a fundamental concern – second language acquisition. The remainder of the chapter provides an abbreviated introduction to the research design proposed for the study, and structural issues to ensure the study's validity. A list of terms particular to the study is presented to end the chapter. The next chapter presents a review of extant literature pertinent to the study.

CHAPTER III

LITERATURE REVIEW

The purpose of this literature review is to identify extant literature to present the trajectory of development, challenges, and initiatives that have shaped bilingual education in Texas. I am utilizing a narrative literature review methodology, since my goal is to gain a thorough understanding of the literature available on the topic. It is a survey of what is currently known about bilingual education, particularly the Transitional Bilingual Program and the Two-Way dual language model, and political, social, and curricular environments that have shaped the program. The literature review may reveal problems, weaknesses, contradictions, and controversies regarding the state of bilingual education, but the review is not intended to evaluate any theory. The literature review is divided into eight sections: (a) literature review process; (b) theoretical framework; (c) second language acquisition; (d) history of bilingual education; (e) Social Justice and bilingual education; (f) Models of bilingual education; (g) Student achievement in Texas; and (h) Prior research.

Literature Review Process

Within this chapter is a review of literature related to second language acquisition programs, the reading achievement of ELL students, second language development theories, and the perceptions and criticisms of Transitional Bilingual Programs and Two-Way dual language programs. These topics were selected for the review as they challenge school leaders in determining the best language program to

assist ELL students in closing the achievement gap in reading. The primary search tools utilized for this literature review were those available at the Texas A&M University Libraries website. Resources available through the university library included databases, research guides, books, and eJournals. The search was limited to literature published within the past five years, except where certain literature might be considered seminal to the study of bilingual education. Literature related to bilingual education other than in the United States or in an instructional language that was not Spanish were excluded from the review.

Keywords used to identify literature regarding second language acquisition programs were: *bilingual education, bilingual education in the U.S, traditional bilingual programs, ESL education, heritage language programs, dual language programs, and Two-Way dual language programs*. The keywords used for the concept of reading achievement of ELL students were: *ELL reading students, LEP reading students, reading achievement of ELL students, history of ELL students in U.S schools, and history of LEP students in U.S schools*.

Theoretical Framework

The theoretical framework that guided the study is Critical Race Theory (CRT) and its expression in the K-12 educational environment, of which Derrick Bell is considered the “movement’s father figure” (Delgado & Stefancic, 2001, p. 5). Bell, a professor of law, along with others, had become disillusioned with the results of the civil rights movement. Despite the law, where Blacks had supposedly gained equality, Bell noted that Whites continued to wield disproportionate power and enjoy a higher

standard of living. Ideals such as meritocracy, equal opportunity, and colorblindness were considered to serve whites, cloaking, and reinforcing society's deep structural inequalities (Delgado & Stefancic, 2001; Ladson-Billings & Tate, 1995; Yosso, Smith, Ceja, & Solorzano, 2011). What once began as a movement in law, spread beyond that discipline to others, such as education.

CRT looks at education through a racial lens to understand such issues as school discipline, tracking, controversies over curriculum, and achievement testing. It tries to understand the social situation and change it; to understand how society organizes itself along racial lines and hierarchies. CRT is concerned with the subtle, cumulative attitudes, and structures that marginalize students of color (Delgado & Stefancic, 2001). CRT is concerned with racism, not as a matter of bad behavior by individual racists, but how it is embedded in attitudes, unconscious biases, and institutions—institutional racism. CRT argues that what Americans think of as the “white race” does not necessarily describe a distinct group of people but a social construct that serves to benefit some groups and marginalize others. An important facet of CRT is its intent not simply to build related knowledge but serve to change the attitudes and systems (Delgado & Stefancic, 2001; Howard & Navarro, 2016; Ladson-Billings & Tate, 1995).

According to Bernal (2002), “although students of color are holders and creators of knowledge, they often feel as if their histories, experiences, cultures, and languages are devalued, misinterpreted, or omitted within formal educational settings” (p. 106). The experience of students of color is subordinated to the prevailing

structures that presumes a “set of assumptions, beliefs, and practices that place the interests and perspectives of white people at the center of what is considered normal and everyday” (Gillborn, 2015). CRT does not necessarily refer to white people themselves; rather, the socially constructed power of which identifications, norms, and interests are a manifestation (Delgado & Stefancic, 2001; Gillborn, 2015). In education, the premise is that racially diverse students enter schools where their expectations, histories, and perspectives are largely excluded from school curriculum and learning opportunities. The challenge becomes the need for educational practitioners to take notice of the diverse ways that students of color know, think, and communicate (Howard & Navarro, 2016). CRT seeks to highlight racism that persists as measured by social indicators.

As noted by Delgado and Stefancic (2001), Blacks and Latinos who seek loans, apartments, or jobs, who are similarly qualified as whites, are more frequently rejected, and reasons given are often vague. Whites fill most positions as chief executive officers, surgeons, and university administrators. “Poverty, however, has a black and brown face: black families have on the average, about one-tenth of the assets of their white counterparts. They pay more for many products, including cars. People of color lead shorter lives receive worse medical care, complete fewer years of school, and occupy more menial jobs than do whites” (p. 12). CRT is concerned not so much with the gross and obvious, but with the subtle, cumulative behaviors and attitudes that separate people of color from full and equal participation in American society (Yosso, Smith, DeJa, & Solorzaon, 2009, p. 663). The notion of full and equal participation in

American society remains a constant in CRT; however, an understanding of the ways in which it is manifested continues to evolve. Dixson and Rousseau (2005), for example, conducted an analysis of CRT ten years after its initial introduction into education, one of the inequities originally identified was the idea of tracking; wherein, black students were being tracked into lower categories of academic rigor and expectations. That blacks were being tracked in such a way was considered to be the problem, according to Ladson-Billings and Tate (1995). Dixson and Rosseau challenged, upon further review it was not the tracking that was truly the issue, it was the teachers' inability to identify black students' potential as per their own inferior teacher preparation experience. The teachers were not pedagogically aware to consider that the black students' abilities were not the concern. Thus, the myth that tracking was the solution was inappropriately perpetuated (p. 24).

CRT is implicit in the context of the study. The study of students working to successfully master and acquire English as a second language, sufficient for them to complete the English version of a state mandated test and meet state standards designed to meet the needs of white students, reflects the crux of CRT and how measures of success are concerned with the lingual and cultural diversity that English language learners bring to school (Rodriguez-Mojica, Briceno, Munoz-Munoz, 2019).

Second Language Acquisition

Learning a second language is different from learning a first language. Learning a second language can take place at any age and in a variety of different contexts. They are learned along a continuum of language proficiency levels (Cenoz & Gorter, 2019;

Duff & Byrnes, 2019; Hartshorne, Tenenbaum, & Pinker, 2018; Texas Education Agency [TEA], 2019). The second language acquisition (SLA) field has evolved since the mid-1960s, when research and practice was situated in a cognitivist paradigm. For several decades thereafter, “research efforts went into searching for common acquisition orders and sequences of development” (Larsen-Freeman, 2017, p. 57), different grammatical structures and continuing the search for rule-governed learner performance.

In 1997, the *Modern Language Journal* published a lead article along with several commentaries that reflected a deep division in the field. The division was between those who espoused the cognitivist approach and those who challenged this focus by arguing that the process was essentially a social one. While it is fair to say the division continues, the field has shifted in the direction of acknowledging the significance of the social in SLA (Duff, 2019; Larsen-Freeman, 2017). The social dimension emphasizes that there can be no learning, or human existence, in a contextual vacuum. Context is sometimes a proxy for such terms as “social, environmental, or ecological aspects of language experience, refers not only to immediate contexts of language experience but also to distributed transnational ties, networks, and imageries, as well as histories” (Duff, 2019, p. 6). While many SLA approaches are currently fundamentally social, they are also cultural, cognitive, and linguistic. They embody how humans engage language activity in various material and symbolic ways (Duff, 2019, p. 7). Texas’ bilingual programs are focused on a combination of the cognitive and social field; wherein, two types of second language acquisition are important for success in school. Students must be able to understand and use the English of everyday social and

routine classroom interactions, as well as the English needed for accessing and negotiating learning, processing cognitively demanding information, and building conceptual understanding. The terms **basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP)** were introduced in the 1980s by a researcher and professor, Jim Cummins, to describe these types of language proficiency (TEA, p. 9). The TEA model reflects current best-practices of SLA; however, it also reflects the accretive nature of SLA (TEA, 2019) and the goal of research and practice to construct a “more holistic, complex, ecological understanding of language and use in the 21st century—with a growing focus on minority students and their languages and well-being and issues of social justice” (Duff & Byrnes, 2019, p. 4).

The History of Bilingual Education

The percent of individuals in the United States whose first language is something other than English has risen dramatically in recent decades. According to Census Bureau estimates, for example, 18% in 2000 and 21.6% in 2016 of the nation’s population spoke a language other than English at home (U.S. Census Bureau, 2017). Coupled with this, the percent of English language learners in public schools “was higher in fall 2016 (9.6%) than in fall 2000 (8.1%)” (National Center for Education Statistics, 2019, para. 1). The majority of these students come from families where the dominant language spoken is Spanish (73%), though this is just one of about 150 languages spoken by students in US schools (Kim, Hutchison, & Winsler, 2015, p. 236). The increase of the language-minority population complements the melting pot metaphor, which suggests the United States is comprised of people representing various

national origins, backgrounds, cultures, and languages. In public schools, identifying effective ways of educating language-minority students are “desired to ensure that they are equipped with the tools necessary to become thriving members of US society” (Kim, Hutchison, & Winsler, 2015, p. 237), thus bilingual education.

Bilingual education has long been a controversial topic in the United States. The style of bilingual education offered to ELLs, and views on the effectiveness of bilingual education in general, have undergone much evolution. A history of its origin and development for approximately the past century provides an overview of significant historical policy developments and issues that have influenced its place in US public education (Garcia, 2014; Kim, Hutchison, & Winsler, 2015). A point of contention along its trajectory has challenged if, how, and for how long English language learners are to be educated in their first language. That English should be the sole language of instruction was a persistent argument. This was evidenced as early as 1855 in California, where English had been declared the only language of instruction, and in New Mexico there was an 1891 statute requiring all schools to teach in English. By 1923, 34 states had passed laws requiring that English be the sole language of instruction (Garcia, 2014, p. 62). It was at this same time that the tide started to change, when the U.S. Supreme Court struck down language-restrictive laws in Nebraska, Ohio, and Idaho. Despite the Supreme Court’s ruling, there was a contingent of scholars, such as those at Harvard, who claimed that foreign-language study was useless and time consuming; it was only useful to improve one’s English (Garcia, 2014, p. 63).

In the midst of this debate, in the southwest, the Mexican American community became more excluded from Spanish language education. Students who only spoke Spanish, immigrating to these areas, were assigned to segregated schools where the focus was the learning of English. With the initiation of the Bracero Program in 1942, which allowed for the entry of short-term Mexican contract laborers for agricultural work, the number of Spanish speakers increased throughout the southwest; at the same time, Puerto Ricans were moving to the northeast, headed to work in the factories. This population increase was taking place during a depressed economy that was rapidly changing, and the schools that were in place to educate the Spanish speaking students were failing them. A 1957 Texas report, for example, showed that the average Spanish-surnamed student spent three years in first grade and dropped out of school before reaching fifth grade. In California in 1960, it was reported that over half of the Spanish-surnamed students had not gone beyond the eighth grade; and among Puerto Ricans 25 years of age or older, 87% had dropped out without graduating from high school (Flores & Garcia, 2017, p. 23). As this was happening, the affected states began to introduce Spanish into some elementary classrooms to help Latino children with the purpose of ensuring comprehension of academic content, but also their shift to English (Flores & Garcia, 2017; Garcia, 2014).

This was the backdrop against which calls for bilingual education emerged, which were subsumed in the Civil Rights Era. During this period, the racial and language discrimination that Latino students were experiencing in the schools was brought to the forefront. The cheerleaders for bilingual education promoted it as a

critical race issue; whereby, it would dismantle White supremacist relations of power. Groups such as the Brown Berets and Young Lords politicized bilingual education to be a radical vision of community control of political and economic development, as well as equal citizenship. On the other hand, were proponents of bilingual education as a vehicle to improve self-esteem of Latinos (Flores & Garcia, 2017; Garcia, 2014; Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019).

There was much lobbying by civil rights groups and Latino advocacy groups during this period, and as a result, Congress passed the Bilingual Education Act in 1968, as an amendment under Title VII of the Elementary and Secondary Education Act (ESEA) of 1965 (U.S. Department of Education, 2016). The Act granted funds to school districts that had a large number of students who were not proficient in English, which were mostly Spanish speakers; funds for the establishment of bilingual programs for English language learners (ELL). Title VII did not originally require schools receiving funds to use a second language in the classroom. This practice was challenged as discriminatory by special interest groups according to the Civil Rights Act of 1964 (U.S. Department of Education, 2016). There was much debate through the lower court system, after which the U.S. Supreme Court ruled in the landmark case *Lau v Nichols* (1974) that children who did not understand the language of instruction were being denied equal treatment. The Supreme Court found that providing identical education programs for both English- and non- English-speaking students did not constitute equal education opportunity and that special language instruction was necessary to allow non-

English speakers real access to the content of the education services (Flores & Garcia, 2017; Garcia, 2014; Kim, Hutchison, & Winsler, 2015).

In 1974 when the Bilingual Education Act was reauthorized, it included the limitation of Spanish in schools to the time students learned English. Essentially, bilingual education was defined as transitional, and the goal was the *mainstreaming* of students into English-only classrooms (Garcia, 2014; Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019). Although the federal bilingual policy was transitional, educators continued to organize “developmental maintenance bilingual education” for students, in which interactive language practices were used. There were efforts made to give attention to the value of using language flexibly, and the Bilingual Education Act funded demonstration projects where the students’ home-language, other than English were used in imaginative programs. About this same time, however, the educational authorities began to call for language separation. In so doing, educational success was being valued only from a monolingual perspective (Garcia, 2014). Restricting the imaginative was encouraged and strengthened with the election of Ronald Reagan. Soon after assuming the presidency, he made his views on bilingual education clear. His rhetoric declared bilingual education was wrong and against American concepts; by openly, admittedly dedicated to preserving the students’ native language and never getting them fluent in English they could not go out into the job market and participate (Flores & Garcia, 2017, p. 24). Such sentiments promoting English only became intensified. As English-only was being given more attention, there were more Latino students entering schools and universities, and the United States reacted to a greater number of Spanish speakers in

their midst and their greater multilingualism by tightening its linguistic borders. This included the introduction of a Constitutional Amendment by Senator Hayakawa in 1981 to make English the official language of the United States (Garcia, 2014).

During this same period, as the Bilingual Education Act was being reauthorized every four years, bilingual education advocates were fighting to protect the use of Spanish in educating Latino students that the federal government called limited English proficient (LEP). In 2002, the No Child Left Behind Act (NCLB) (Pub. L. No. 107-110) was authorized, and Title VII (Bilingual Education Act) was eliminated. Title VII was replaced by Title III of NCLB, which was titled Language Instruction for Limited English Proficient and Immigrant Students. Teaching and assessment of English proficiency and academic standards met through English only were the result of NCLB. Attention was turned from the teaching of Spanish to raising standards in English only. Financial resources and attention were taken away from the teaching of Spanish to strengthen the teaching of English and Math. During the same period, with the final authorization of Title VII, the quota for English-only programs was lifted, and two-way immersion programs, commonly referred to as dual language programs, began to dominate bilingual education models (Flores & Garcia, 2017; Garcia, 2014; Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019); thus, the focus of this study.

Social Justice and Dual Language Programs

Bilingual education is situated to correct social inequities, it offers the possibility of challenging the marginalization of Latino and other minoritized students (Flores & Garcia, 2014). Schools that promote bilingual programming, such as dual language

programs, are essential for the development of bilingualism, biliteracy, and academic benefit for ELLs. Unfortunately, “these schools are the exception as politics and nationalism drive educational structures and programming (Wiemelt & Welston, 2015, p. 83). Schools that are committed to social justice are communities that strive to be culturally and linguistically responsive and view the cultural and linguistic knowledge ELLs bring to the school as an asset, not as a risk for failure. These schools create policies and practices that reflect pro-bilingual educational beliefs, and “challenge the role of racism and linguisticism in education” (p. 84), drawing upon the experiences of ELLs as a strength to be incorporated and encouraged, not a deficit to learning (Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019; Wiemelt & Welston, 2015). There are bilingual educators who have been able to create classrooms that affirm the bilingualism of their Latino students and instill cultural pride; however, they have been able to do little to challenge the structural barriers their students face in larger society. While bilingual education programs have become mainstream in schools, not the exception that they once were, teachers in these programs can do little to challenge the inequities that exist between low-income students and their White middle-class counterparts. Social justice in a school setting, at its best, creates an equitable environment, regardless of a student’s first or home language (Wiemelt & Welston, 2015, p. 84).

In U.S. schools, ELL students receive explicit and implicit messages that their “linguistic practices are not welcome in the classroom” (Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019, p. 59). This notion, this marginalization, bears the mark of the

history of bilingual education in U.S. schools, which had two competing visions during the civil rights movement. There was one vision that espoused “race radicalism”; wherein, bilingual education was a struggle against oppression. The other vision espoused “liberal multiculturalism” encouraging subtractive education, which includes the idea that bilingual education is intended to simply help ELLs develop standardized American English; if the ELLs become proficient in English, they are able to complete the state-mandated assessment (p. 59). Critics often argue that the use of non-English languages in public schools lessens the role of English as a source of linguistic and cultural unification. Among the critics, it is not so much the idea that the ability to speak two languages is bad but bilingual instruction delays the acquisition of English fluency, and that is their contention. This is the vision that is currently being manifested in bilingual education. Thus, for ELLs, English and Spanish are viewed as deficits, while White students who learn Spanish as a second language are praised. In its current form, then, bilingual education is racialized. In order to ensure ELLs are prepared to complete the English state-mandated assessment, for example, they are first assessed in their English language proficiency. For the ELL, there is the added challenge to not only complete the state’s mandated test administered to all students; the ELL must also complete and meet certain proficiency metrics defined by an English proficiency assessment. The term English language learner, for example, and its implicit testing requirements stigmatize and result in over testing ELLs, as well as infer they are less-American than their English-speaking peers, since English is associated with citizenship

and Spanish with foreigners (Flores & Garcia, 2017; Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019; Wiemelt & Welston, 2015).

Advocates and critics generally agree that all students should become fluent in English. There is also general agreement that having citizens who speak more than one language is a worthy goal; however, there are some educators, elected officials, school reformers, and policy makers who argue that programs intended for language-minority students should be designed to promote the cultural assimilation of ELLs into mainstream American society (Flores & Garcia, 2017; Garcia, 2014). Where bilingual education is acceptable as long as it aligns with the majority's interests and needs, such as when a bilingual education program is introduced at a campus because a group of parents want their children to learn a second language, represents the notion of interest convergence. In such a situation, the introduction of a bilingual education program is not to provide for equity among ELLs, but in response to the majority's interest. This does not reflect authentic social justice, standing in contrast to seeking equity for all students (Rodriguez-Mojica, Briceno, & Munoz-Munoz, 2019), and this is central to the ongoing controversy to define and select the most appropriate bilingual education model for a district or campus.

Models of Bilingual Education

Several approaches to bilingual education have been implemented over the years, and can be thought of as on a continuum, depending on the relative importance that the program places on the native language of ELLs. There are five dominant models along this continuum that were described in this section: (a) submersion; (b) English as second

language (ESL) instruction; (c) early-exit or transitional bilingual education (TBE); (d) late-exit, developmental, or maintenance bilingual education; and (e) Dual-Language or Two-Way Immersion (Kim, Hutchison, & Winsler, 2015; Rodriguez-Tamayo & Tenjo-Macias, 2019; Umansky & Reardon, 2014).

Submersion. With this model, ELLs are not offered any special language services, and instruction is entirely in English. Submersion programs were originally designed so that ELLs would become proficient in the dominant language as quickly as possible by being exposed to nothing else. Another version of a submersion program is structured immersion, where students are given native language instruction for a one-year transition period, and then move into an all-English classroom environment. The goal is to have ELLs become English proficient as quickly as possible; however, research has demonstrated that this model is not effective at helping language-minority students to catch up to their native English-speaking peers in terms of English language knowledge and academic performance. This model is more likely to be found in areas with few language-minority students (e.g., rural areas of the United States) and/or where resources for serving ELL students are quite limited (Christian, 2016; Fitzsimmons-Doolan, Palmer, & Henderson, 2017; Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014).

English as a Second Language (ESL). This model involves individualized instruction that focuses on acquisition of English language skills. One example of how elementary grade level ESL students' needs are addressed is having the student taken from their primary classroom for a portion of the day to receive individualized

instruction with an ESL teacher. Once students matriculate to middle school, it is more common to have ESL students' class schedule include an ESL class period. Another variation of ESL involves having an ESL teacher go into the primary classroom and work with the ESL student. The ESL model varies from the submersion model as it recognizes the need for individualized instruction to assist ELLs become proficient in English; however, there remains no instruction in their native language (Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014).

Early Exit or Transitional Bilingual Education (TBE). Similar to the submersion and ESL models, these programs focus on helping ELLs acquire English as quickly as possible; however, these differ from the earlier models, in that they include the use of their native language in their primary classroom. The notion of transition is applied as the use of the native language in the classroom is phased out beyond second or third grade; based on the belief that students should not be too reliant on their native language, risking becoming fully proficient in English. Early exit (TBE) programs are likely to be found in school districts and campuses where the ELL population is smaller or the availability of bilingual teachers is limited (Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014).

Late Exit, Maintenance, or Developmental Bilingual Education. This model differs from Early Exit/TBE in that ELLs receive a substantial portion of instruction in their native language, which may continue for several years. Unlike students in TBE, those in Late Exit continue to receive part of their instruction in the native language even after they become English proficient. The late exit model developed as a growing

recognition of the importance of maintaining the ELL's native language. The goal is to develop each language equally; not lose the native language (L1) but use it to support proficiency in the second language (L2). Among the various bilingual education models thus far discussed, students enrolled in the Late Exit model demonstrated higher academic performance (Christian, 2016; Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014).

Dual-Language or Two-Way Immersion (TWI). In this model, speakers of both languages are placed together in a bilingual classroom to learn each other's language and to work academically in both languages. In a two-way program the language-majority students become bilingual and biliterate alongside the language-minority students. TWI may begin as early as kindergarten for a minimum of six years. TWI aims at bilingual proficiency, high academic achievement, and cross-cultural understanding among all students. In this setting, students become peer teachers and language models for one another. Moreover, these dual language experiences have helped students become comfortable with speaking the second language and interacting with members from other groups, helping to create cross-cultural school communities and an appreciation for diversity among language groups and cultures (Christian, 2016; Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014).

Bilingual education is generally seen as a way to ensure that non-English speaking students or those not yet English proficient, are provided equitable opportunities to achieve academic success. Schools and teachers may employ different bilingual education models, each with its own specific goals, yet each is situated to

develop English fluency, content knowledge, and academic knowledge to succeed in an academic program to increase student achievement.

Student Achievement in Texas

The Texas state mandated public school student assessment is The State of Texas Assessment of Academic Readiness (STAAR). All students in certain grade levels defined in STAAR guidelines are administered the assessment. English language learners (ELL) are administered an additional state mandated assessment, the Texas English Language Proficiency Assessment System (TELPAS). Each assessment includes passing standards that students' performance on each assessment must meet to be considered proficient.

The State of Texas Assessments of Academic Readiness (STAAR). In the 2011-2012 school year the Texas Education Agency implemented STAAR, the state's mandated high-stakes test. It was developed and implemented in collaboration with the Texas Higher Education Coordinating Board (THECB) and Texas educators, and was developed in response to requirements set forth by the 80th and 81st Texas legislatures (Texas Assessment Program, n.d., p. 1). STAAR is designed to measure what students have learned and how they are able to apply the knowledge and skills defined in the state-mandated curriculum standards, the Texas Essential Knowledge and Skills (TEKS). Every STAAR assessment item is aligned to the TEKS per the grade/subject or course being assessed. The program includes STAAR and STAAR Spanish (p. 2).

STAAR assessments are administered for: (a) grades 3-8 mathematics; (b) grades 3-8 reading; (c) grades 4 and 7 writing; (d) grades 5 and 8 science; (e) grade 8 social

studies; and (f) Algebra I, English I, English II, Biology, and U.S. History (Texas Education Agency, STAAR Resources, n.d., para. 1). Each grade/subject and course assessment include a small percentage of TEKS, known as readiness standards, that have been identified by TEA as the most critical to assess; they are defined as those that are not only essential for success in the current grade or course, but also important for being prepared to enter the next level. The readiness standards are emphasized on the assessments (Texas Education Agency, Texas Assessment Program, n.d., p. 2).

There are STAAR accessibility features and designated supports for English language learners in grades 3-8 and high school. A Spanish version of STAAR is available for eligible students in grades 3-5. Students' eligibility for the Spanish version, as well as accessibility features and designated supports, are decided annually by the respective campus language proficiency assessment committee (LPAC) for individual students (Texas Education Agency, Texas Assessment Program, p. 15). Each ELL is assigned an LPAC until such time as they are determined to be proficient in English to no longer require bilingual program support. An LPAC also determines if ELL is to complete STAAR Spanish. STAAR Spanish is available in mathematics and reading at grades 3-5 and writing at grade 4 (p. 16).

Texas English Language Proficiency Assessment System (TELPAS). An important assessment particular to students in Texas designated as English language learners is the Texas English Language Proficiency Assessment System (TELPAS), which is the state's version of a required assessment according to Title III, Language Instruction for English Learners, and Immigrant Students of Every Student Succeeds Act

(ESSA) (Elementary and Secondary Education Act, P.L. 115–224, Enacted July 31, 2018). Title III, Section 3115 states,

An eligible entity receiving funds under section 3114(a) shall use the funds to increase the English language proficiency of English learners by providing effective language instruction educational programs that meet the needs of English learners and demonstrate success in increasing – (a) English language proficiency; and (b) student academic achievement. (Sec. 3115 (c))

TELPAS assesses the progress ELLs kindergarten through grade 12 make in acquiring the English language in alignment with the Texas English Language Proficiency Standards (ELPS). ELs are assessed in listening, speaking, reading, and writing (Texas Education Agency, Texas Assessment Program, p. 17). The ELPS, which were approved by the State Board of Education in 2007-2008 are second language acquisition standards “that support the ability of ELs to learn the academic English they need for meaningful engagement in subject-area instruction. The ELPS are set forth in Title 19, Chapter 74.4 of the Texas Administrative Code” (TELPAS Educator Guide, p. 1). TELPAS is designed to directly “support the state’s educational goals for meeting the language and content needs of ELs” (p. 2).

The ELPS and TELPAS are aligned to allow ELLs to make steady progress in learning the English that is necessary for meaningful engagement in grade-appropriate content area instruction. The ELPS include four language domains, with each identifying proficiency levels: beginning, intermediate, advanced, and advanced high. The domains are listening, speaking, reading, and writing (p. 4). The relationship

between the language domains and particular proficiency levels are essential for assessing English language proficiency. TELPAS assesses the English language proficiency of ELLs as a summative spring assessment. Students stopped participating in TELPAS when their language proficiency assessment committee (LPAC) determines that they are proficient in the English language and have met exit criteria. This applies to all ELs even those who are not in a bilingual or ESL program. Once a student has met the state's exit criteria, they no longer are identified as an ELL and do not have to participate in TELPAS (Texas Education Agency, TELPAS resources).

Prior Research

A review of prior research introduced me to three studies related to student achievement of ELLs enrolled in transitional and two-way dual language programs. The first study under review conducted by Quesada (2007), included as its purpose comparing the writing achievement of fourth grade English language learners who in participated in Dual Language bilingual program with the writing achievement of fourth grade English language learners who participated in a transitional bilingual program as measured by the Texas Assessment of Knowledge and Skills in English (p. 41). A *t*-test was used to analyze the data obtained from the Dual-Language and transitional bilingual programs. A Pearson chi-square test was used with the dual-language and transitional bilingual program to determine statistical significance based on the difference between the observed frequencies of pass and fail rates. It was determined a statistically significant difference existed between the pass rate of students who participated in the dual-language program and the transitional bilingual program. Both groups performed

higher than the state commended performance rate for the English language learner population as well as for all students (p. 80).

Nascimiento (2011) conducted a pilot study to compare the academic achievement around language arts literacy among elementary bilingual students, kindergarten – third grade, enrolled in either a dual-language: two-way immersion program or in an early exit program. The results of curriculum-based measures in the areas of word decoding and overall reading comprehension were analyzed. The study revealed that students continuously enrolled in a two-way immersion program demonstrated high academic achievement than students enrolled in an early exit program (p. 31).

Rapp (2017) conducted a study that compared the difference in literacy achievement of students in grades K-3 between four different bilingual program models allowed in Texas. The bilingual programs in which students were enrolled and chosen for comparison included: transitional/early exit, transitional/late exit, dual language/one way, and dual language/two way (p. 9). A chi-square test of independence was utilized to determine if the type of bilingual program influenced whether students were reading on grade level. Additionally, a one-way Analysis of Covariance (ANCOVA) statistical test was applied to test if there was a relationship between bilingual program and third grade Reading STAAR scores for ELLs (p. 70). The results indicated that ELs enrolled in two-way, one-way, and transitional late exit in first through third grade experience higher literacy levels of achievement than ELLs in a transitional early exit bilingual program (110). A review of the three aforementioned studies provide a more robust

understanding of similarly shared areas of research interest and the nature of factors to consider in my study.

Summary

Chapter II, the literature review, includes topics that create the backdrop against which the study is to be conducted. It discusses the theoretical framework, second language acquisition field of study, the relationship between social justice and bilingual education, a history of bilingual education, models of bilingual education, student achievement in Texas as it relates to ELLs, and a review of prior research related to the topic of students enrolled in various bilingual education programs and their comparable academic achievement. The next chapter addresses the methodology for my study.

CHAPTER III

METHODS

In this chapter, I present the methods used in my study. The chapter begins with a restatement of the purpose, and research questions that guide the study. The remaining sections of the chapter addressed the research design, variables, selection of participants, instrumentation, data collection, and data analysis. I concluded the chapter with a brief summary.

Purpose of the Study

The purpose of my study is twofold, as applicable to one urban school district. First, I determined if there are differences in passing rates on the English version of the reading State of Texas Assessments of Academic Readiness (STAAR) exam between fourth grade ELLs in a Two-Way dual language program and a TBP. The second purpose of my study is to determine if there are differences in the percentages of fourth grade ELLs in a Two-Way dual language program and a TBP scoring on the Meets and Masters Grade Level on English reading STAAR.

The Research Questions

The research questions for my study are as follows:

1. To what extent do differences exist on the cumulative performance standards and scaled scores on the fourth grade English reading STAAR for ELLs in a Two-Way dual language program and a Traditional Bilingual Program?

2. What differences exist in the percentages of ELLs in a Two-Way dual language program and a Traditional Bilingual Program scoring at the meets and masters grade level on the fourth grade English reading STAAR?

Research Design and Procedures

The quantitative research design was chosen for this study; because it allowed for a comparison of English reading STAAR scores among two groups of ELLs who participated in two different language programs. Specifically, a causal-comparative design was used to compare the two programs. The causal-comparative design does not manipulate the two required independent variables as it is compared to the one dependent variable (Lunenburg & Irby, 2008). Student reading STAAR test scores were gathered at the end of their fourth grade, at the conclusion of the 2018-2019 school year, to compare the reading achievement in English of ELLs between the Two-Way dual language program and the TBP. The students who participated in the Two-Way dual language program had been in the program since early childhood and tested in English on reading STAAR at the end of fourth grade. The students in the TBP also participated in the program since early childhood and tested in English on reading STAAR at the end of fourth grade.

Setting

For this study, participants were selected from 12 public elementary schools that offer a dual language program or traditional bilingual program and exhibit similar demographics. These campuses are part of a large urban school district in Houston area that serve approximately 209,040 students at 280 campuses. It is the seventh largest

school district in the country, serving major parts of Harris County and the Houston metropolitan area. According the 2018-2019 Texas Academic Performance Report, the student demographics within the district are as follows: 65.3% are at-risk, 31.8% are English Language Learners, 32.4% are served in bilingual or ESL education program, 79.9% are economically challenged, and 100% of the district qualifies for Title I funding (Texas Education Agency, 2019e). This information in Table 1 and Table 2 provided further information related to breakdown of campus program model, modality, and grade levels along with specific percentages of student demographics.

Variables

In this study, the student participation in a Two-Way dual language program or TBP are the independent variables and reading achievement in English as measured by the fourth grade 2018-2019 STAAR scores is the dependent variable. The Spanish Reading Grade 3 2017-2018 STAAR results were added as an additional covariate to provide a baseline for the Analysis of Covariance (ANCOVA) test that was carried out.

Currently, Texas has over 3,000 campuses in 1,236 school districts (TEA, 2016). Due to the high number of sample sizes that are available with Texas public schools it is important to find a sample size that is representative, sufficiently large, and free of sampling error and bias in order to be generalizable (Irby& Lunenburg, 2008). Irby and Lunenburg define generalizability as, “The extent to which the results of one study can be applied to other populations” (Irby & Lunenburg, 2008, p. 167).The sample for my study was comprised of 12 public elementary schools in a large urban district in Texas;

six of the schools offer a dual-language program, and six offer a traditional bilingual program (early exit).

The participant schools for this study were selected using the purposive sampling method. “Purposive sampling involves selecting a sample based on the researcher’s experience or knowledge of the group being sampled” (Irby & Lunenburg, 2008. p. 175). The state currently has over 1,000 elementary schools, which may be classified as public, charter, magnet, discipline alternative educational program (DAEP), juvenile justice alternative educational program (JJAEP), or deaf/blind campuses (TEA, 2016), but the schools selected to participate have met specific criteria.

The 12 participating schools met the following commonly shared criteria: (a) include a fourth grade; (b) offer a 50/50 Two-Way Dual Language program or a Traditional (Transitional) Bilingual Program; (c) serve a population of over 90% economically challenged students; and (d) serve a population of over 52% ELL students. Those campuses that participated in dual language or transitional bilingual model are listed in Table 1.

Table 1

Breakdown of Campuses Program Model, Modality, & Grade Level

Campuses	Model	Modality	Grade Levels
1	Dual Language 50/50	Two-Way	PK-4
2	Dual Language 50/50	Two-Way	PK-4
3	Dual Language 50/50	Two-Way	K-5
4	Dual Language 50/50	Two-Way	PK-5
5	Dual Language 50/50	Two-Way	PK-4
6	Dual Language 50/50	Two-Way	PK-4
7	Transitional Bilingual	Early Exit	PK-5
8	Transitional Bilingual	Early Exit	PK-5
9	Transitional Bilingual	Early Exit	PK-5
10	Transitional Bilingual	Early Exit	PK-5
11	Transitional Bilingual	Early Exit	PK-5
12	Transitional Bilingual	Early Exit	PK-5

Table 2 provides further demographic detail on each of the 12 campuses related to percentages of students who are economically challenged, at-risk, English learners, and Hispanic.

Table 2

Breakdown of Student Information by Campus

Campuses	Economically Challenged %	At-Risk %	English Learner %	Hispanic %
1	92.7%	82.8%	52.7%	98.1%
2	93.5%	82.2%	48.3%	95.3%
3	92.6%	46.9%	37.8%	73.8%
4	86.5%	78.5%	44.6%	85.7%
5	90.2%	80.8%	54.9%	91.9%
6	94.9%	81.0%	46.4%	96.4%
7	96.3%	83.4%	67.5%	97.3%
8	98.8%	86.1%	58.0%	98.6%
9	96.2%	80.8%	49.9%	99.5%
10	98.6%	90.3%	63.3%	99.3%
11	100.0%	87.3%	61.6%	96.8%
12	96.2%	84.7%	60.4%	95.6%

All students from the participant schools that tested in English on STAAR Reading 2018-2019 at the end of their fourth-grade year were included in the study regardless of date of enrollment. Only students who earned Advanced level or above on TELPAS scores were included in data. Third grade Spanish Reading STAAR 2017-2018 results were also be included to represent baseline data.

The study sample of students that were tested in STAAR Reading also represented homogeneity in that they all shared the following criteria: (a) English Learner; (b) economically challenged; (c) native (L1) or home language was Spanish; (d) Hispanic/Latino Origin (e) at-risk; (f) first generation immigrant; and (g) enrolled at a Title I campus.

Selection of Participants

A purposeful homogeneous sampling technique was used to select students who participated in the Two-Way dual language and TBP Program from 12 participant elementary schools. Participants were selected using the following characteristics for eligibility: (a) English Learner; (b) economically challenged; (c) native (L1) or home language was Spanish; (d) Hispanic/Latino Origin (e) at-risk; (f) first generation immigrant; and (g) enrolled at a Title I campus. The original sample included 701 participants of which only 683 met the above characteristics of eligibility and had taken the STAAR Spanish Reading Grade 3 2017-2018 as well as STAAR English Reading Grade 4 2018-2019. Other participants were also removed due to incomplete assessment data such as TELPAS related data.

Instrumentation

The data source for my study is the fourth grade English STAAR Reading scores, the campus STAAR Summary Report for 2018-2019 and third grade Spanish Reading STAAR 2017-2018.

State of Texas Assessment of Academic Readiness (STAAR). The STAAR reading assessment is intended to evaluate the state-mandated curriculum, the Texas

Essential Knowledge and Skills (TEKS). The curriculum contains the content and skills students need to learn in order to be successful in the current grade and to make academic progress from year to year. Each STAAR assessment measures what students are learning in a specific grade (TEA, 2016a, 2017a, 2019c). The assessments subject to evaluation are grades 3-8 reading and mathematics, grades 4 and 7 writing, grades 5 and 8 science, and grade 8 social studies. Performance standards for STAAR 3–8 assessments are based on recommendations from standard-setting committees. These committees, which convened in October 2012, were composed of K–12 educators. Each panelist was an expert in both the assessed content and the TEKS (TEA, 2013).

STAAR Validity and Reliability. To comply with House Bill (HB) 743, the Texas Education Agency (TEA) contracted with the Human Resources Research Organization (HumRRO) to provide an independent evaluation of the validity and reliability of the State of Texas Assessments of Academic Readiness (STAAR) in grades 3-8 (TEA, 2016b). According to TEA (2016b) HumRRO has experience in conducting validity and reliability studies for other testing programs in other states. HumRRO was tasked with three points: a) provide empirical evidence for the validity of the STAAR scores b) provide empirical evidence for the projected reliability of the assessment and c) evaluate the procedures to build the STAAR assessments and whether they support the creation of valid and reliable assessments (TEA, 2016b).

HumRRO finds overwhelming support for the validity and reliability of the STAAR assessments. For task 1, HumRRO identified evidence of the content validity of the assessments. Overall, the content of the 2016 forms aligned with blueprints and the vast

majority of items were aligned with the TEKS. The exceptions to these findings were grades 5 and 8 mathematics and reading, and grades 4 and 7 writing (TEA, 2016b). For task 2 empirical evidence of the projected reliability and standard error of measurement for the 2016 forms as the conditional standard error of measurement (CSEM) estimates were all acceptable (TEA, 2016b). HumRRO concluded for task 3, the processes used to construct the 2016 tests and the proposed methods for scoring the 2016 test are consistent with industry standards and support the development of tests that measure the knowledge and skills outlined in the content standards and test blueprint. The processes allow for the development of tests that yield valid and reliable assessment scores (TEA, 2016b).

STAAR Summary Report (SSR). The data collected for the purposes of my study were obtained from the campus STAAR summary report. The report provides extensive information on number and percentage of students who were not assessed, total documents submitted, demographic groups and program information, the number of students assessed for each demographic group, the average scaled score for each demographic group, and the number and percentage of students who achieved satisfactory performance and/or achieved advanced or higher performance are displayed for each demographic group. Results for each reporting category are also included in the report (TEA, 2016c, 2017a, 2019c).

Data Collection

This study employed a quantitative methodology of data collection. Prior to commencing, I obtained approval to conduct the research. I received approval from the

Institutional Review Board (IRB) at Texas A&M University; wherein, I completed the IRB application according to the university's protocols. I also received approval from the school district in which are located the 12 participant schools: (a) to conduct the research project within the district; and (b) be granted access to the pertinent STAAR student performance summary reports as per the participant schools. The requested summary reports included: (a) the fourth-grade reading STAAR 2018-2019, to indicate passing rates and the percentages of students scoring at the Approaches, Meets, and Masters grade level; and (b) third grade Spanish Reading STAAR 2017-2018 results. Demographic information pertaining to the schools was also included on the summary reports.

Data Analysis

In this study the student participation in a Two-Way dual language program or TBP are the independent variables and reading achievement in English as measured by the fourth grade STAAR scores is the dependent variable. The Spanish Reading STAAR results are the covariant, since they represent the same student cohort, but the previous school year's STAAR results. To compare the differences in performance between the student groups of the 12 schools, an ANCOVA test was applied. The ANCOVA test allowed me to simultaneously compare the STAAR results, by way of the scaled scores, of fourth grade students from the 12 participant schools to determine whether a relationship exists between them. Spanish Reading STAAR results were used as a covariate and baseline for the ANCOVA test. The result of the ANCOVA test, the F statistic, allowed me to analyze groups of student data to determine how it varies

between and within groups. The ANCOVA test results were used to determine whether there are any statistically significant differences between the means of the STAAR results for students from the 12 schools. The Statistical Package for the Social Science (SPSS) was used to analyze the data and compare the means for the DL and TBP groups to determine the statistical significance between the independent variables.

Additionally, an independent sample *t*-test was added to the research study, to test the equality of means between the student Spanish Reading STAAR scores for both DL and TBP groups. These Spanish Reading STAAR scores or baseline results were also compared using Levene's Test for homogeneity and equality of variances.

Summary

Chapter III addressed the methods and methodology that I utilized and apply to conduct my research project. I began the chapter with a restatement of the purpose, and research questions that guide the study. The remaining sections of the chapter address the research design, variables, selection of participants, instrumentation, data collection, and data analysis. The next chapter presents the data analysis and findings.

CHAPTER IV

DATA ANALYSIS AND FINDINGS

This chapter included the results for the data analysis related to the research questions. The purpose of my study is twofold, as applicable to one urban school district. First, I determined if there are differences in passing rates on the English version of the Reading State of Texas Assessments of Academic Readiness (STAAR) exam between fourth grade ELLs in a Two-Way dual language program and a TBP. The second purpose of my study is to determine if there are differences in the percentages of fourth grade ELLs in a Two-Way dual language program and a TBP scoring on the meets and masters grade level on English reading STAAR.

The research questions addressed in this study are as follows:

1. To what extent do differences exist on the cumulative performance standards and scaled scores on the fourth grade English reading STAAR for ELLs in a Two-Way dual language program and a Traditional Bilingual Program?
2. What differences exist on in the percentages of ELLs in a Two-Way dual language program and a Traditional Bilingual Program scoring at the meets and masters level on the fourth grade English reading STAAR?

Data Analysis

To address the research questions above, the study utilized a quantitative method or causal-comparative analysis, more specifically an ANCOVA test to compare variables and evaluate the student test scores for both DL and TBP programs. According to

Creswell (2013) a causal comparative research design is used when comparing “two or more groups in terms of a cause, or an independent variable, that has already happened” (p. 12). The causal-comparative design also “seeks to find relationships between independent and dependent variables after an action or event has already occurred” (Salkind, 2010, p. 124).

In this study, the student participation in a Two-Way dual language program or TBP are the independent variables and reading achievement in English as measured by the STAAR Grade 4 Reading 2018-2019 scores are the dependent variable. The Spanish Reading Grade 3 2017-2018 STAAR results are the covariant, since they represent the same student cohort, but the previous school year’s STAAR results.

In order to compare the differences in performance between the student groups of the 12 schools, an ANCOVA test was applied. The ANCOVA test allowed me to simultaneously compare the English version of the STAAR Grade 4 Reading 2018-2019 results, by way of the scaled scores, of fourth grade students from the 12 participant schools to determine whether a relationship exists between them. Spanish Reading Grade 3 2017-2018 STAAR results were used as a covariate and baseline for the ANCOVA test. The result of the ANCOVA test, the F statistic, allowed me to analyze groups of student data to determine how it varies between and within groups. The ANCOVA test results were used to determine whether there were any statistically significant differences between the means of the STAAR results for students from the 12 schools. The Statistical Package for the Social Science (SPSS) was used to analyze the

data and compare the means for the DL and TBP groups of determine the statistical significance between the independent variables.

For the purposes of this study, the following tables represent the descriptive data that was gathered as a result of the Analysis of Covariance (ANCOVA) test. An ANCOVA test provides researchers with a way to analyze how a relationship exists between the independent and dependent variable while removing any effect from the covariate factor (Salkind, 2010).

Additionally, a table indicating the results of the independent sample *t*-test was added to test the equality of means between the student Spanish Reading STAAR scores for both DL and TBP groups. These Spanish Reading STAAR scores or baseline results were also compared using Levene's Test for homogeneity or equality of variances.

Research Question One:

To what extent do differences exist on the cumulative performance standards and scaled scores on the fourth grade English reading STAAR for ELLs in a Two-Way dual language program and a Traditional Bilingual Program?

The sample included 683 student Reading STAAR scores that were defined by that state's performance standards and relate to levels of test performance based on state mandated TEKS curriculum standards (TEA, 2017). Texas Education Agency defines passing scores based on the following performance labels such as: Approaches Grade Level, Meets Grade Level and Masters Grade Level. A failing score carries a Did Not Meet Grade Level performance label. Based on the STAAR Spring 2019 Raw Score Conversion Table for Grade 4 Reading, any score above 1434 was considered a passing

score and categorized as being either at the Approaches, Meets or Masters Grade Level (TEA, 2019b). Those below a 1433 were considered as not meeting appropriate performance standards and designated as a Did Not Meet Grade Level.

For purposes of my study, all passing scores used in the sample met the performance standards and criteria outlined by TEA as being at the Approaches, Meets or Masters Grade Level. An ANCOVA analysis was used to compare group performance and to determine the strength of relationships.

As shown in Table 3 and Table 4, there were a total of 683 fourth grade students included in the sample that participated in the DL and TBP programs and took the following STAAR Assessments: Spanish Reading Grade 3 2017-2018 (Pre-Reading Performance) and English Grade 4 Reading 2018-2019 (Post-Reading Performance). Of these 683 participants, 310 were enrolled in a DL program, while 373 were enrolled in a TBP program.

Table 3

Students' Performance Results on STAAR Spanish Reading Grade 3 2017-2018

Group	Did Not Meet	Approaches	Meets	Masters	Total
DL	65	112	70	63	310
TBP	64	143	91	75	373
Total	129	255	161	138	683

Table 4

Students' Performance Results on STAAR English Reading Grade 4 2018-2019

Group	Did Not Meet	Approaches	Meets	Masters	Total
DL	49	131	67	63	310
TBP	91	153	74	55	373
Total	140	284	141	118	683

Table 3 and 4 provide a complete breakdown of the performance results on both the Pre-Reading and Post-Reading Performance. Table 3 demonstrated that of the 373 students enrolled in the TBP program, 64 scored at the Did Not Meet Level, 143 scored at Approaches Level, 91 at Meets Level, and 75 at the Masters Level in terms of the Spanish Reading Grade 3 STAAR Assessment. In contrast, of the 310 students enrolled in the DL program, 65 scored at the Did Not Meet Level, 112 scored at Approaches Level, 70 at Meets Level, and 63 at the Masters Level in terms of the Spanish Reading Grade 3 STAAR Assessment.

Table 4 indicated that of the 310 students enrolled in the TBP program, 91 scored at the Did Not Meet Level, 153 scored at Approaches Level, 74 at Meets Level, and 55 at the Masters Level in terms of the Reading Grade 4 STAAR Assessment. In contrast, of the 310 students enrolled in the DL program, 49 scored at the Did Not Meet Level, 131 scored at Approaches Level, 67 at Meets Level, and 63 at the Masters Level in terms of the Reading Grade 4 STAAR Assessment.

The sample included 683 students scores that were defined by that state's performance standards and relate to levels of test performance based on state mandated

TEKS curriculum standards (TEA, 2017). Based on the STAAR Spring 2018 Raw Score Conversion Table for Grade 3 Spanish Reading, any score above 1318 was considered a passing score and categorized as being either at the Approaches, Meets or Masters Grade Level (TEA, 2017b). Those below a 1317 were considered as not meeting appropriate performance standards and designated as a Did Not Meet Grade Level. Based on the STAAR Spring 2019 Raw Score Conversion Table for Grade 4 Reading, any score above 1434 was considered a passing score and categorized as being either at the Approaches, Meets or Masters Grade Level (TEA, 2019b). Those below a 1433 were considered as not meeting appropriate performance standards and designated as a Did Not Meet Grade Level.

Table 5

STAAR Spanish Reading Grade 3 Students' Results in Percentages

Group	Did Not Meet	Approaches	Meets	Masters
DL	21.0%	36.1%	22.6%	20.3%
TBP	17.2%	38.3%	24.4%	20.1%

Figure 1 Students' Performance Results on STAAR Spanish Reading Grade 3

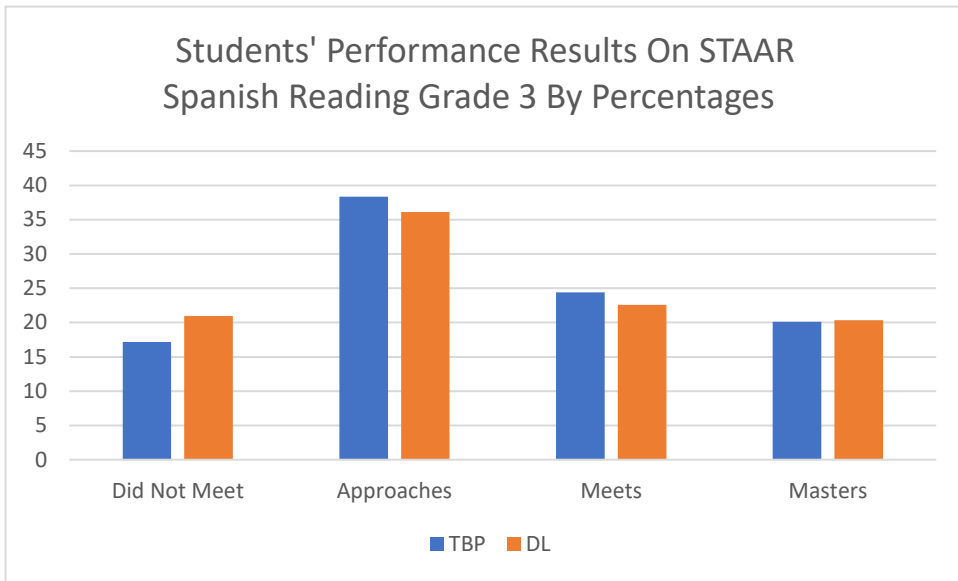


Table 5 and Figure 1 provided a complete breakdown of the students' performance results on the Spanish Reading Grade 3 STAAR Assessment based on percentages. According to Table 5, of the 373 students enrolled in the TBP program, 17.2% scored at the Did Not Meet Level, 38.3% scored at Approaches Level, 24.4% at Meets Level, and 20.1% at the Masters Level. In contrast, of the 310 students enrolled in the DL program, 21.0% scored at the Did Not Meet Level, 36.1% scored at Approaches Level, 22.6% at Meets Level, and 20.3% at the Masters Level.

Table 6

STAAR English Reading Grade 4 Students' Results in Percentages

Group	Did Not Meet	Approaches	Meets	Masters
DL	15.8%	42.3%	21.6%	20.3%
TBP	24.4%	41.0%	19.8%	14.7%

Table 6 and Figure 2 provided a complete breakdown of the students' performance results on the Reading Grade 4 STAAR Assessment based on percentages. According to Table 6, of the 373 students enrolled in the TBP program, 24.4% scored at the Did Not Meet Level, 41.0% scored at Approaches Level, 19.8% at Meets Level, and 14.7% at the Masters Level. In contrast, of the 310 students enrolled in the DL program, 15.8% scored at the Did Not Meet Level, 42.3% scored at Approaches Level, 21.6% at Meets Level, and 20.3% at the Masters Level.

Figure 2 Students' Performance Results on STAAR English Reading Grade 4

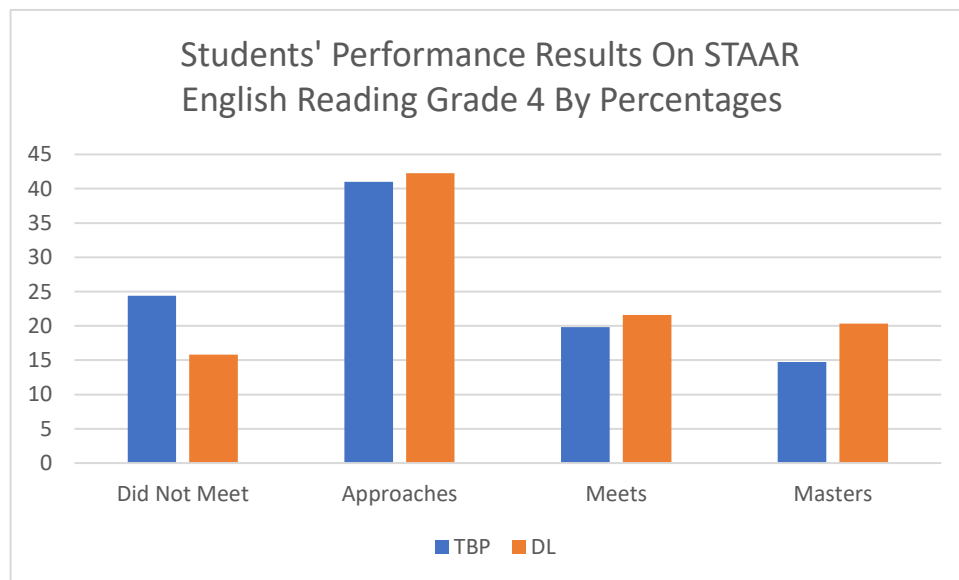


Table 7

T-Test Descriptives of Students' Spanish Reading Scaled Scores Pre-Reading Performance Approaches, Meets and Masters Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	310	1440.39	128.61
TBP	373	1437.09	131.24
Total	683	1438.59	129.97

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; *SD* = Standard Deviation.

Table 8

Levene's Test for Group Comparison on Students' Spanish Pre-Reading Performance Approaches, Meets and Masters Grade Level

		Levene's Equality Variance		t-test for Equality of Means					
		<i>F</i>	Sig.	<i>t</i>	<i>df</i>	Sig.	Mean Diff.	<i>SE</i> Diff.	95% C Diff. Lower
Pre-Reading	Equal	0.01	0.94	0.33	681	0.74	3.3	10	-16.32
Performance	variances assumed								
	Equal			0.33	662.87	0.74	3.3	9.98	-16.29
	variances not assumed								

Note. *df* = Degrees of Freedom; *SE* = Standard Error; *diff* = difference.

The data in Table 7 demonstrate that the average student scaled score of the dual language immersion program on STARR Spanish Reading Grade 3 2017-2018, in the prior year, (mean = 1440.39) was higher than that of the transitional bilingual program (mean = 1437.09). Therefore, students' pre-reading performance scores indicate that there was an even baseline or no significant difference between the DL and TBP programs. The pre-reading scores, Spanish Reading Grade 3, were used as baseline and covariate for the ANCOVA analysis. As outlined in Table 8, there was no significant difference in students' reading performance between these two groups of students in the DL and TBP programs, $t(681) = .33, p > .05$.

Table 9

ANCOVA Descriptive of Students' English Reading Scaled Scores Post-Reading Performance Approaches, Meets and Masters Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	310	1530.53	116.45
TBP	373	1503.94	117.39
Total	683	1516.01	117.63

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; SD = Standard Deviation.

Table 10

ANCOVA Group Comparison on Students' Spanish & English Reading Proficiency Performance Approaches, Meets and Masters Grade Level

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1244019.99	2	622009.99	51.63	<.001
Intercept	6291870.81	1	6291870.81	522.27	<.001
Pre-Performance	1124339.98	1	1124339.98	93.33	<.001
Program Type	110553.86	1	110553.86	9.18	.003
Error	8192093.96	680	12047.2		
Total	1579163154	683			
Corrected Total	9436113.95	682			

Note. df = Degrees of Freedom.

As represented by Table 9, student scaled scores of the dual language immersion program on STARR English Reading (mean = 1530.53) was higher than that of the transitional bilingual program (mean = 1503.94). Table 10 indicates that there was a significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1, 680) = 9.18, p < .05, R^2 = .132$. In other words, students in the DL group outperformed TBP significantly in terms of satisfying the passing performance standard of Approaches or above in the post-reading assessment, STAAR Reading Grade 4. For these specific DL and TBP groups, there is a

statistically significant relationship between in STAAR Grade 4 Reading 2018-2019 scores between the fourth-grade DL group and their counterparts in the TBP program.

Research Question Two:

What differences exist in the percentages of ELLs in a Two-Way dual language program and a Traditional Bilingual Program scoring at the meets and masters grade level on the fourth grade English reading STAAR?

Of these 683 participants, 310 were enrolled in a DL program, while 373 were enrolled in a TBP program. Among the 310 students enrolled in the DL program, 67 of these student participants scored at the meets grade level. Among the 373 students enrolled in the TBP program, 74 of these student participants scored at the Meets Grade Level. Among the 310 students enrolled in the DL program, 63 of these student participants scored at the Masters Grade Level. Among the 373 students enrolled in the TBP program, 55 of these student participants scored at the meets grade level. If a student earns a scaled score of 1550-1632 on the reading STAAR test, the score indicates a Meets Grade Level distinction. A scaled score of 1633 or above indicates the students has satisfied the performance standards of Masters Grade Level (TEA, 2017a, 2019b). An ANCOVA analysis was used to compare group performance and to determine the strength of relationships.

Table 11

ANCOVA Descriptives of Students' Spanish Reading Scaled Scores Pre-Reading Performance Meets Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	67	1485.85	96.20
TBP	74	1425.97	117.43
Total	141	1454.43	111.6

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; *SD* = Standard Deviation.

As represented by Table 11, the average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1485.85) was higher than that of the transitional bilingual program (mean = 1425.97).

Table 12

ANCOVA Descriptives of Students' English Reading Scaled Scores Post-Reading Performance Meets Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	67	1583.67	22.81
TBP	74	1586.65	27.53
Total	141	1585.23	25.35

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; *SD* = Standard Deviation.

As represented by Table 12, the average student scaled score of the transitional bilingual program on STARR English Reading Grade 4 (mean = 1586.65) was higher than that of the dual language immersion program (mean = 1583.67).

Table 13

ANCOVA Group Comparison on Students' Spanish & English Reading Proficiency Performance Meets Grade Level

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	318.53	2	159.27	0.25	0.783
Intercept	1914328.48	1	1914328.48	2946.08	<.001
Pre-Performance	6.9	1	6.9	0.01	0.918
Program Type	265.59	1	265.59	0.41	0.524
Error	89670.74	138	649.79		
Total	354418332	141			
Corrected Total	89989.28	140			

Note. df = Degrees of Freedom.

As shown in Table 13, there was no significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,138) = 0.41, p > .05$. As demonstrated in Table 13, when comparing students' pre-reading performance, STAAR Spanish Reading Grade 3, between the two programs, we found that there was a significant difference, $t(139) = 3.292, p < .05$.

Table 14

ANCOVA Descriptives of Students' Spanish Reading Scaled Scores Pre-Reading Performance Masters Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	63	1556.41	124.34
TBP	55	1497	146.9
Total	118	1528.72	137.98

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; *SD* = Standard Deviation.

As represented by Table 14, the average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1556.41) was higher than that of the transitional bilingual program (mean = 1497).

Table 15

ANCOVA Descriptives of Students' English Reading Scaled Scores Post-Reading Performance Masters Grade Level

Program Type	<i>N</i>	Mean	<i>SD</i>
DL	63	1698.98	63.49
TBP	55	1690.8	70.46
Total	118	1695.17	66.66

Note. DL = Dual Language Immersion Program; TBP = Transitional Bilingual Program;

N = the number of students; *SD* = Standard Deviation.

As represented by Table 15, the average student scaled score of the dual language immersion program STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8).

Table 16

ANCOVA Group Comparison on Students' Spanish & English Reading Proficiency Performance Masters Grade Level

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4390.14	2	2195.07	0.49	0.614
Intercept	2757852.46	1	2757852.46	615.14	<.001
Pre-Performance	2423.32	1	2423.32	0.54	0.464
Program Type	2907.78	1	2907.78	0.65	0.422
Error	515582.47	115	4483.33		
Total	339604726	118			
Corrected Total	519972.61	117			

Note. df = Degrees of Freedom.

As represented by Table 15, the average student scaled score of the dual language immersion program on STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8). According to Table 16, there was no significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,115) = 0.65, p > .05$. As shown in Table 16, when comparing students' pre-reading performance, STAAR Spanish Reading Grade 3, between the two programs, we found

that there was a significant difference, $t(116) = 2.38, p < .05$. For these DL and TBP groups, there is no statistically significant relationship in the differences exist in the percentages of ELLs in a Dual Language program (DL) and a TBP scoring at the Meets and Masters Grade Level on the fourth grade STAAR English Reading. I did find a statistical difference when comparing the DL and TBP student groups pre-reading performance scores on the STAAR Spanish Reading Grade 3 at the Meets and Masters Grade Level as demonstrated in Table 11 and Table 14.

Summary

The purpose of this study was twofold, as applicable to one urban school district and 12 participating schools. First, I determined if there are differences in passing rates on the English version of the Reading Grade 4 STAAR 2018-2019 exam between fourth grade ELLs in a dual language program and a transitional bilingual program. The second purpose of this study was to determine if there were differences in the percentages of fourth grade ELLs in a dual language program and a transitional bilingual program scoring on the Meets and Masters Grade level on Reading Grade 4 STAAR exam.

The 12 participating schools met the following commonly shared criteria: (a) include a fourth grade; (b) offer a 50/50 Two-Way Dual Language program or a Traditional (Transitional) Bilingual Program; (c) serve a population of over 90% economically challenged students; and (d) serve a population of over 52% ELL students. All students from the participant schools that tested in English on STAAR Reading 2018-2019 at the end of their fourth-grade year were included in the study regardless of

date of enrollment. Only students who earned Advanced level or above on TELPAS scores were included in data. Third grade Spanish Reading STAAR 2017-2018 results were also be included to represent baseline data. The study sample of students that were selected and STAAR tested all shared the following criteria: (a) English Learner; (b) economically challenged; (c) native (L1) or home language was Spanish; (d) Hispanic/Latino Origin (e) at-risk; (f) first generation immigrant; and (g) enrolled at a Title I campus.

In this quantitative study, student participation in a Two-Way dual language program (DL) or transitional bilingual program (TBP) were the independent variables and reading achievement in English as measured by the fourth grade Reading STAAR scores is the dependent variable. The Spanish Reading Grade 3 STAAR results were the covariant, since they represented the same student cohort, but the previous school year's STAAR results. To compare the differences in performance between the student groups of the 12 schools, an ANCOVA test was applied. The ANCOVA test allowed me to simultaneously compare the Reading STAAR results, by way of the scaled scores, of fourth grade students from the 12 participant schools to determine whether a relationship exists between them. Spanish Reading STAAR results were used as a covariate and baseline for the ANCOVA test. The result of the ANCOVA test, the F statistic, allowed me to analyze groups of student data to determine how it varies between and within groups. The ANCOVA test results were used to determine whether there are any statistically significant differences between the means of the STAAR results for students from the 12 schools. In addition, an independent sample t-test was added to the research

study, to test the equality of means between the student Spanish Reading STAAR scores for both DL and TBP groups. These Spanish Reading STAAR scores or baseline results were also compared using Levene's Test for homogeneity and equality of variances.

Student participation in a Two-Way dual language program (DL) or transitional bilingual program (TBP) were the independent variables and reading achievement in English as measured by the fourth grade Reading STAAR scores is the dependent variable. The Spanish Reading Grade 3 STAAR results were the covariate. For purposes of this study, all passing scores used in the sample met the performance standards and criteria outlined by TEA as being at the Approaches, Meets or Masters Grade Level. The major findings of the study are as follows:

- a. A statistically significant difference was evident in post-reading performance from STAAR Grade 4 Reading passing scores between fourth-grade Two-Way Dual Language (DL) immersion students and their counterparts in the Transitional Bilingual Program (TBP). The findings suggested that students in the DL group outperformed TBP significantly in terms of satisfying passing performance standards passing performance standard of Approaches or above in the post-reading assessment, STAAR Reading Grade 4. The student scaled scores of the dual language immersion program on Reading Grade 4 STAAR scores (mean = 1530.53) was higher than that of the transitional bilingual program (mean = 1503.94) as represented by Table 3. Furthermore, data in Table 4 indicated that there was a significant difference in students' current reading proficiency between the dual language immersion program and the

transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1, 680) = 9.18, p < .05, R^2 = .132$.

b. There was no statistically significant differences among percentages of ELLs in a Dual Language program (DL) and a TBP scoring at the Meets Grade Level on the STAAR Grade 4 Reading state assessment. In other words, when comparing the performance standard of Meets Grade Level, the data in Table 6 and Table 16 indicated that the average student scaled score of the transitional bilingual program on STARR English Reading Grade 4 (mean = 1586.65) was only a few points higher than that of the dual language immersion program (mean = 1583.67). Additionally, the data in Table 7 related to Meets Grade Performance Level indicated there was no significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,138) = 0.41, p > .05$.

c. There was no statistically significant differences among percentages of ELLs in a Dual Language program (DL) and a TBP scoring at the Masters Grade Level on the STAAR Grade 4 Reading state assessment. More specifically, when comparing the performance standard of Masters Grade Level, the data in Table 9 and 18 indicated that the average student scaled score of the dual language immersion program STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8). Unfortunately, there was no significant difference in students' current reading

proficiency at the Masters Grade Performance Level between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,115) = 0.65, p > .05$ as represented by Table 10.

d. A statistically significant difference was evident in pre-reading performance from STAAR Spanish Reading Grade 3 scores between Two-Way Dual Language (DL) immersion students and their counterparts in the Transitional Bilingual Program (TBP) at the Meets and Masters Grade Level. In other words, the average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1485.85) was higher than that of the transitional bilingual program (mean = 1425.97) at Meets performance level, as represented in Table 11. Also, the average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1556.41) was higher than that of the transitional bilingual program (mean = 1497) at Masters performance level, as represented in Table 14.

In the next chapter, I present the discussion of the findings, limitations, recommendations, and conclusions.

CHAPTER V

DISCUSSION, LIMITATIONS, RECOMMENDATIONS, AND CONCLUSIONS

Throughout the history of bilingual education, there have been several attempts at creating federal policies that would benefit English language learners and in turn put more pressure on states and local education agencies to develop quality educational programs (e.g., dual language immersion, bilingual education and/or ESL programs) that were based on best practices. The Bilingual Education Act of 1968 is a significant example of how federal governing officials reached a consensus to support and acknowledge the inequities associated with providing limited-English speaking students with equal educational opportunities to succeed academically in schools across the country (Lyons, 1990; Stewner-Manzanares, 1988).

In 1967 legislation was introduced to offer assistance to school districts to establish educational programs specifically for LESA (limited English-speaking ability) students. This newly introduced bill put forth important recommendations that supported the teaching of Spanish as a native language, the teaching of English as a second language, and programs designed to give Spanish-speaking students an appreciation of ancestral language and culture (Stewner-Manzanares, 1988). This legislation resulted in the introduction of 37 other bills which were combined into a single measure known as Title VII of the Elementary and Secondary Education Act (ESEA) or the Bilingual Education Act (BEA) of 1968. This federal legislation advocated for equal opportunity education, mandated federal funding for initiatives such as development of bilingual programs and

for the first time recognized LESA students have special educational needs (Crawford, 1999).

Historically, there have also been Supreme Court cases such as *Lau v. Nichols* and *Castañeda v. Pickard* that brought about federal mandates to increase the effectiveness and overall quality of educating English language learners (ELL) equal to their English-speaking peers. The final decision of the 1974 *Lau v. Nichols* Supreme Court case mandated that all students, including minority language students such as ELLs must be provided with an equal educational opportunity like that of their English-speaking peers (Crawford, 1999; Haas & Gort, 2009). Furthermore, in 1981, *Castañeda v. Pickard*, gained public attention across the United States for challenging the states failures to uphold federal laws called for providing equal educational opportunities that promoted academic success of all students. *Castañeda v. Pickard* court case resulted in the Supreme Court establishing a three-part assessment that held local education agencies (e.g., school districts) accountable for taking appropriate action regarding equal educational opportunities, adequate resources, and accountability measures through their bilingual education programs (Haas and Gort, 2009). Thus, state and local education agencies were responsible for meeting requirements of the Equal Educational Opportunities Act (EEOA) of 1974 that required bilingual education and related programs be based on sound educational theory, implemented effectively with sufficient resources, and demonstrate effectiveness overtime in overcoming language barriers or inefficiencies (Crawford, 1999; Haas & Gort, 2009; US Department of Education, 2016).

In the state of Texas, TEA, ensures that all school districts adhere to the state policy known as the Texas Education Code, Chapter 29, which requires that all English language learners be “provided a full opportunity to participate in a bilingual education or English as a second language (ESL) program” (Texas Education Agency, 2017c).

As part of this study, I examined the impact of a dual language model versus a transitional bilingual program on student achievement levels. More specifically, we investigated and compared differences in passing rates on the English version of the Reading Grade 4 STAAR 2018-2019 exam between fourth grade ELLs in a dual language program and a transitional bilingual program. I also assessed the differences in the percentages of fourth grade ELLs in a dual language program and a transitional bilingual program scoring on the Meets and Masters Grade level on Reading Grade 4 STAAR exam. Using data available from a large urban school district in Texas and 12 participating schools, we analyzed relationships between student STAAR scores and participation in a DL or TBP program. The 12 participating schools met the following commonly shared criteria: (a) include a fourth grade; (b) offer a 50/50 Two-Way Dual Language program or a Traditional (Transitional) Bilingual Program; (c) serve a population of over 90% economically challenged students; and (d) serve a population of over 52% ELL students. All students from the participant schools that tested in English on Reading Grade 4 STAAR 2018-2019 were included in the study regardless of date of enrollment or level of English proficiency as measured by the TELPAS. Spanish Reading Grade 3 STAAR 2017-2018 results were also be included to represent baseline data. The study sample of students that were selected and STAAR tested all shared the

following criteria: (a) English Learner; (b) economically challenged; (c) native (L1) or home language was Spanish; (d) Hispanic/Latino Origin (e) at-risk; (f) first generation immigrant; and (g) enrolled at a Title I campus.

In order to compare the differences in performance between the DL and TBP groups of the 12 schools, an ANCOVA test was applied. The ANCOVA test allowed me to simultaneously compare the Reading Grade 4 STAAR results, by way of the scaled scores, of fourth grade students from the 12 participant schools to determine whether a relationship exists between them. Spanish Reading Grade 3 STAAR results were used as a covariate and baseline for the ANCOVA test. The result of the ANCOVA test, the F statistic, allowed me to analyze groups of student data to determine how it varies between and within groups. The ANCOVA test results were used to determine whether there are any statistically significant differences between the means of the STAAR results for students from the 12 schools. In addition, an independent sample t-test was added to the research study to test the equality of means between the student Spanish Reading STAAR scores for both DL and TBP groups.

In the chapter below, I provide discussions based on the research questions that are also reflective of the literature review and data analysis. The chapter also provides findings and recommendations for further research to better understand the impact DL and TBP program have on student achievement levels such as STAAR scores.

Discussion

Research Question One:

To what extent do differences exist on the cumulative performance standards and scaled scores on the fourth grade English reading STAAR for ELLs in a Two-Way dual language program and a Traditional Bilingual Program?

To respond to this question, an ANCOVA analysis was used to compare group performance and to determine the strength of relationships. The sample included 683 student Reading Grade 4 STAAR scores that were defined by TEA's performance standards. For purposes of our study, all passing scores used in the sample met the performance standards and criteria outlined by TEA as being at the Approaches, Meets or Masters Grade Level. Of these 683 participants, 310 were enrolled in a DL program, while 373 were enrolled in a TBP program.

As shown above in Table 3 and Table 4, there were a total of 683 fourth grade students included in the sample that participated in the DL and TBP programs and took the following STAAR Assessments: Spanish Reading Grade 3 2017-2018 (Pre-Reading Performance) and English Grade 4 Reading 2018-2019 (Post-Reading Performance). Table 3 and 4 provide a complete breakdown of the performance results on both the Pre-Reading and Post-Reading Performance.

Table 3 demonstrated that of the 373 students enrolled in the TBP program, 64 scored at the Did Not Meet Level, 143 scored at Approaches Level, 91 at Meets Level, and 75 at the Masters Level in terms of the Spanish Reading Grade 3 STAAR Assessment. In contrast, of the 310 students enrolled in the DL program, 65 scored at

the Did Not Meet Level, 112 scored at Approaches Level, 70 at Meets Level, and 63 at the Masters Level in terms of the Spanish Reading Grade 3 STAAR Assessment.

Table 4 indicated that of the 310 students enrolled in the TBP program, 91 scored at the Did Not Meet Level, 153 scored at Approaches Level, 74 at Meets Level, and 55 at the Masters Level in terms of the Reading Grade 4 STAAR Assessment. In contrast, of the 310 students enrolled in the DL program, 49 scored at the Did Not Meet Level, 131 scored at Approaches Level, 67 at Meets Level, and 63 at the Masters Level in terms of the Reading Grade 4 STAAR Assessment. The sample included 683 students scores that were defined by that state's performance standards and relate to levels of test performance based on state mandated TEKS curriculum standards (TEA, 2017). Based on the STAAR Spring 2018 Raw Score Conversion Table for Grade 3 Spanish Reading, any score above 1318 was considered a passing score and categorized as being either at the Approaches, Meets or Masters Grade Level (TEA, 2017b). Those below a 1317 were considered as not meeting appropriate performance standards and designated as a Did Not Meet Grade Level. Based on the STAAR Spring 2019 Raw Score Conversion Table for Grade 4 Reading, any score above 1434 was considered a passing score and categorized as being either at the Approaches, Meets or Masters Grade Level (TEA, 2019b). Those below a 1433 were considered as not meeting appropriate performance standards and designated as a Did Not Meet Grade Level.

Data from Table 7 demonstrated that the average student scaled score of the dual language immersion program on STARR Spanish Reading Grade 3 2017-2018, in the prior year, (mean = 1440.39) was higher than that of the transitional bilingual program

(mean = 1437.09). Therefore, students' pre-reading performance scores indicate that there was an even baseline or no significant difference between the DL and TBP programs.

Table 5 and Figure 1 below provided a complete breakdown of the students' performance results on the Spanish Reading Grade 3 STAAR Assessment based on percentages. According to Table 12, of the 373 students enrolled in the TBP program, 17.2% scored at the Did Not Meet Level, 38.3% scored at Approaches Level, 24.4% at Meets Level, and 20.1% at the Masters Level. In contrast, of the 310 students enrolled in the DL program, 21.0% scored at the Did Not Meet Level, 36.1% scored at Approaches Level, 22.6% at Meets Level, and 20.3% at the Masters Level.

These pre-reading scores, Spanish Reading Grade 3, were used as baseline and covariate for the ANCOVA analysis. As outlined in Table 2 of the previous chapter, there was no significant difference in students' pre-reading (Spanish Reading Grade 3) performance between these two groups of students in the DL and TBP programs, $t(681) = .33, p > .05$.

As represented by Table 9, student scaled scores of the dual language immersion program on Reading Grade 4 STAAR scores (mean = 1530.53) was higher than that of the transitional bilingual program (mean = 1503.94). The data in Table 4 indicated that there was a significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1, 680) = 9.18, p < .05, R^2 = .132$.

In other words, students in the DL group outperformed TBP significantly in terms of satisfying passing performance standards passing performance standard of Approaches or above in the post-reading assessment, STAAR Reading Grade 4. Table 6 and Figure 2 below provided a complete breakdown of the students' performance results on the Reading Grade 4 STAAR Assessment based on percentages.

According to Table 6, of the 373 students enrolled in the TBP program, 24.4% scored at the Did Not Meet Level, 41.0% scored at Approaches Level, 19.8% at Meets Level, and 14.7% at the Masters Level. In contrast, of the 310 students enrolled in the DL program, 15.8% scored at the Did Not Meet Level, 42.3% scored at Approaches Level, 21.6% at Meets Level, and 20.3% at the Masters Level.

In terms of student achievement, DL group outperformed the TBP group at the fourth-grade level in terms of Reading STAAR scores collectively at the passing performance standard of Approaches or above. This may be related to the fact that dual language programs promote bilingual proficiency, high academic achievement, and cross-cultural understanding among all students (Christian, 2016; Kim, Hutchison, & Winsler, 2015). In this environment, students become more comfortable with speaking, reading, writing in the second language, and interacting with members from other groups, helping to create cross-cultural school communities and an appreciation for diversity (Christian, 2016; Kim, Hutchison, & Winsler, 2015; Umansky & Reardon, 2014). As scholars (Calderon & Carreon, 2000; Collier, 1992; Cummins, 1981; DeJong, 2004; Cloud, Genesee, & Hamayan, 2000) infer students with a strong native or home language foundation typically perform better academically on assessments of English

proficiency. Several research studies have shown that ELLs with a strong foundation in their home language find it easier to transfer academic concepts to the second language (Collier, 1992; Crawford, 1995; Cummins, 1996; Freeman & Freeman, 1993; Krashen, 1996). Further research conducted by Nascimiento (2011), Quesada (2007), Rapp (2017), has asserted that students who participated in the dual-language program as opposed to an early-exit transitional bilingual program perform better on state assessments and score at higher performance levels. Nacimientto (2011) studies further revealed that students in a dual-language program demonstrated higher academic achievement levels around language arts and reading comprehension versus those students enrolled in an early exit program. Rapp (2017) also reinforced that ELLs enrolled in a dual language program (two-way or one-way) and transitional late exit from the early grades experienced higher literacy levels of achievement than ELLs in a transitional early exit bilingual program.

Research Question Two:

What differences exist in the percentages of ELLs in a Two-Way dual language program and a Traditional Bilingual Program scoring at the meets and masters grade level on the fourth grade English reading STAAR?

To respond to this question, an ANCOVA analysis was used to compare group performance and to determine the strength of relationships. The sample included student Reading Grade 4 STAAR scores that were defined as meeting high passing rates and/or performance standards outlined by TEA as being Meets and Masters Grade Level. Of the original 683 participants, 310 were enrolled in a DL program, while 373 were

enrolled in a TBP program. Among the 310 students enrolled in the DL program, 67 of these student participants scored at the Meets Grade Level and 63 of them scored at the Masters Grade Level. Among the 373 students enrolled in the TBP program, 74 of these student participants scored at the Meets Grade Level and 55 of them scored at the Meets Grade Level.

As represented by Table 11 Meets Grade Performance Level, the average student scaled score of the dual language immersion program at the STARR Spanish Reading Grade 3 (mean = 1485.85) was higher than that of the transitional bilingual program (mean = 1425.97). Table 12 provided related data at Meets Grade Performance Level that indicated that the average student scaled score of the transitional bilingual program on STARR English Reading Grade 4 (mean = 1586.65) was higher than that of the dual language immersion program (mean = 1583.67). The data in Table 13 related to Meets Grade Performance Level indicated there was no significant difference in students' current reading proficiency (STARR English Reading Grade 4) between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,138) = 0.41, p > .05$. As demonstrated in Table 13, when comparing students' pre-reading performance at Meets Grade Performance Level, STAAR Spanish Reading Grade 3, between the two programs, we found that there was a significant difference, $t(139) = 3.292, p < .05$.

As represented by Table 14, at the Masters Grade Performance Level, the average student scaled score of the dual language immersion program from the STARR Spanish Reading Grade 3 (mean = 1556.41) was higher than that of the transitional

bilingual program (mean = 1497). As represented by Table 15, the average student scaled score of the dual language immersion program STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8). According to Table 16, there was no significant difference in students' current reading proficiency at the Masters Grade Performance Level between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1,115) = 0.65, p > .05$. The data in Table 16 showed that when comparing students' pre-reading performance at Masters Grade Performance Level, STAAR Spanish Reading Grade 3, between the two programs, we found that there was a significant difference, $t(116) = 2.38, p < .05$.

For these particular DL and TBP groups, there is no statistically significant relationship in the differences exist in the percentages of ELLs in a Dual Language program (DL) and a TBP scoring at the Meets and Masters Grade Level on the fourth grade STAAR English Reading. Although we did find that the average student scaled score of the dual language immersion program STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8) at Masters performance level, as represented in Table 18. The success of the DL group on STAAR Reading assessment at the Masters performance level aligns well with what the many scholars have inferred over the years. Home-language skills are a strong predictor of second language learning and those students with a strong native or home language foundation typically perform better academically on assessments of English proficiency (Calderon & Carreon, 2000; Collier, 1992; Cummins, 1981; DeJong, 2004; Cloud,

Genesee, & Hamayan, 2000). Additionally, several research studies have indicated that ELLs with a strong foundation in their home language find it easier to transfer academic concepts to the second language (Collier, 1992; Crawford, 1995; Cummins, 1996; Freeman & Freeman, 1993; Krashen, 1996).

Additionally, I did find a statistical difference, when comparing the DL and TBP student groups pre-reading performance scores on the STAAR Spanish Reading Grade 3 at the Meets and Masters Grade Level. The average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1485.85) was higher than that of the transitional bilingual program (mean = 1425.97) at Meets performance level, as represented in Table 11. The average student scaled score of the dual language immersion program STARR Spanish Reading Grade 3 (mean = 1556.41) was higher than that of the transitional bilingual program (mean = 1497) at Masters performance level, as represented in Table 14. As Christian (2016) and Kim, Hutchison, & Winsler (2015) inferred this may be related to the fact that dual language programs promote bilingual proficiency, high academic achievement, and cross-cultural understanding among all students. As Rapp (2017), Quesada (2007), Nascimiento (2011), have also reiterated in their research, students who participated in the dual-language program versus transitional bilingual program (such as early-exit program) tend to demonstrate higher academic achievement performance. Although as Quesada (2007) and Nacimiento (2011) studies further revealed that students in both dual-language program and the transitional bilingual program still tended to score higher on

state assessments, and above the state commended performance standard, in comparison to other students.

Critical Race Theory is also implicit in the context of this study and should be acknowledged from the findings in this section. The participants in this study, are English language learners, Latinos, first generation immigrant and their native language is Spanish. Yet, they are required to meet the same performance standards on state mandated STAAR assessments as their peers who grow up speaking English as a first language and understanding the education ideals of American society. More specifically, participants as those found in this study, must successfully master and acquire English as a second language, sufficient for them to complete the English version of a state mandated test and meet state standards designed to meet the needs of white students. This reflects the crux of CRT and how measures of success are concerned with the lingual and cultural diversity that English language learners bring to school (Rodriguez-Mojica, Briceno, Munoz-Munoz, 2019). The pressure ELLs and first-generation immigrant students face in public schools, in terms of mastering the English language and adhering to a new culture can be troubling. As some scholars have put forth, students of color may feel ostracized in educational setting and feel that their histories, experiences, culture and language are devalued and only those beliefs of the prevailing social structure (assumptions, beliefs, attitudes, practices) dominated by a traditional white perspective are considered to be normal and valuable (Bernal, 2002; Delgado & Stefancic, 2001; Gillborn, 2015).

Limitations

The first limitation is the study being conducted with the reading and performance standards of Texas Education Agency and therefore cannot be generalized for the entire nation. Secondly, the data being collected is for a single academic year (STAAR Grade 4 Reading Assessment 2018-2019) and cannot indicate growth for students in either program. Additionally, the data sample used was taken from only a single urban school district in Texas and 12 campuses. These results of this data may not provide an ideal snapshot of all types of school districts in Texas, particularly how rural or border school districts in Texas implement dual language and transitional bilingual programs from grades kindergarten to fourth grade. And how English learners perform on state assessments related to reading these other areas throughout Texas.

Conclusions and Recommendations

According to the U.S. Department of Education, National Center for Education Statistics (2017), as of 2017 the percentage of English learners (ELLs) enrolled in U.S. public schools held steady at around 5 million or 10.1 % of the entire student population. Among the ELL student populations, the majority home language was Spanish representing 3.7 million ELL public school students in fall 2017 or 74.8 % of all ELL students across the country. The ELLs, whose home language is Spanish represent 7.6 % of all public K–12 students. The states that have a 10.0 % or higher rate of ELLs among public school student populations are as follows: Alaska, California, Colorado, Florida, Illinois, Kansas, Nevada, New Mexico, Texas, and Washington. The states with

the highest percentage of ELLs among its student populations are California (19.2 %), Texas (18.0 %) and Nevada (17.1 %) (U.S. Department of Education, 2017).

During the 2019-20 academic year, ELLs accounted for 1,113,536 of the student population in Texas public schools or 20.3 % of the total student population (Texas Education Agency, 2020). The continued growth of ELL student populations in Texas has also increased the demand for Bilingual/English as a second language (ESL) instructional programs as 1,129,558 students are currently enrolled in these programs for the 2019-20 academic year (Texas Education Agency, 2020). School districts are required to adhere to the state policy provide all English learners equal education opportunities such as access to participate in a bilingual education or English as a second language (ESL) program (Texas Education Agency, 2017c).

Bilingual education is generally seen as a way to ensure that non-English speaking students or those not yet English proficient, are provided equitable opportunities to achieve academic success. Schools districts and campuses have the right to employ different bilingual education models such as two-way dual language, one-way dual language, transitional bilingual early exit, transitional bilingual late exit, or other type of ESL program (content based, pull-out model, self-contained, etc.). Each with its own specific goals, yet each is situated to develop English fluency, content knowledge, and academic knowledge to succeed in an academic program to increase student achievement. As many scholars and research findings have put forth, dual language or two-way immersion programs are especially effective in promoting language proficiency and academic achievement among ELL student populations

(Christian, 2016; Kim, Hutchison, & Winsler, 2015; Nascimiento, 2011; Quesada, 2007; Rapp, 2017; Rodriguez-Tamayo & Tenjo-Macias, 2019; Sanchez, Garcia, & Solorza, 2018; Umansky & Reardon, 2014).

Transitional Bilingual Program is the most common language program for English Learners in Texas. Extensive research has been conducted on the methods of the program as well as the reading achievement levels of ELLs students in TBP classrooms compared to mainstream students (Arroyo-Roman, 2016; Whitacre, 2015). These programs do not develop or maintain bilingualism, since students are quickly assimilated and transitioned into the all-English setting to meet the state's goal to have them speaking, reading, writing, and comprehending the English language (Arroyo-Roman, 2016). With the transitional bilingual program being the most widely used program for ELL students in Texas (Arroyo-Roman, 2016; Whitacre, 2015), we must continue to examine the overall impact of TBP programs on ELL student achievement and in closing the academic performance gap in areas such as reading. Similarly, we must also continue to research the impact dual language program models have on ELL academic success and achievement levels.

District leaders can decide which of the two program models, transitional bilingual program, or dual language program, is most beneficial for meeting the social and academic needs of English learners. As Cummins (1986, 1981, 1980) and Krashen (1992) have stated in several of their research studies that ELL students require a strong foundation in the primary language to aid the development of literacy in the second language. Additionally, a large portion of the literature relate to English learners

reemphasized the importance of native or home-language skills on students' academic outcomes. In other words, proficiency in the home language is strongly associated with second language learning, literacy development and achievement in content areas (Calderon & Carreon, 2000; Cloud, Genesee, & Hamayan, 2000; Collier, 1992; Crawford, 1995; Cummins, 1996; Cummins, 1981; DeJong, 2004; Freeman & Freeman, 1993; Krashen, 1996). Thus, it is vital for scholars and educators to reach a consensus through research and educational practices to conclude which program model is more favorable for developing strong literacy skills in L2, increasing academic levels in all content areas, and closing the achievement gap for English learners.

The primary interest of this study was to providing insight on the student achievement levels of English learners in a dual language model compared to a transitional bilingual program using state assessment data. More specifically, to determine if there are differences in passing rates on the English version of the Reading State of Texas Assessments of Academic Readiness (STAAR) 2018-2019 exam between fourth grade ELLs in a Two-Way dual language program and a TBP. The second purpose of my study was to determine if there are differences in the percentages of fourth grade ELLs in a Two-Way dual language program and a TBP scoring on the meets and masters grade level on STAAR Grade 4 Reading Assessment.

The findings suggested that students in the DL group outperformed TBP significantly in terms of satisfying passing performance standards passing performance standard of Approaches or above in the post-reading assessment, STAAR Reading Grade 4. The student scaled scores of the dual language immersion program on Reading

Grade 4 STAAR scores (mean = 1530.53) was higher than that of the transitional bilingual program (mean = 1503.94) as represented by Table 3. Furthermore, data in Table 4 indicated that there was a significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1, 680) = 9.18, p < .05, R^2 = .132$.

When comparing the performance standard of Meets Grade Level, the data in Table 6 and Table 16 indicated that the average student scaled score of the transitional bilingual program on STARR English Reading Grade 4 (mean = 1586.65) was a few points higher than that of the dual language immersion program (mean = 1583.67). Additionally, the data in Table 7 related to Meets Grade Performance Level indicated there was no significant difference in students' current reading proficiency between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in the preceding year, $F(1, 138) = 0.41, p > .05$.

In contrast, when comparing the performance standard of Masters Grade Level, the data in Table 9 and 18 indicated that the average student scaled score of the dual language immersion program STARR English Reading Grade 4 (mean = 1698.98) was higher than that of the transitional bilingual program (mean = 1690.8). Unfortunately, there was no significant difference in students' current reading proficiency at the Masters Grade Performance Level between the dual language immersion program and the transitional bilingual program when controlling for students' reading proficiency in

the preceding year, $F(1,115) = 0.65$, $p > .05$ as represented by Table 10. These findings reinforce what scholars have asserted in relationship to the dual language approach. It may take few years to see the impact of DL on students' academic achievement levels as they accumulate strong literacy and academic language skills in L1 and are able to transfer these skills to L2 (Cummins, 1996; Cummins, 1981; DeJong, 2004; Freeman & Freeman, 1993; Krashen, 1996). Therefore, it is vital for schools to provide English learners with strong foundation in terms of oral and literacy skills in their native language or home language (Collier, 1992; Cummins, 1981; Krashen, 1999; Thomas & Collier, 1997).

The findings also bring to light implications regarding the impact of dual language and TBP programs on students' academic achievement levels. More importantly, a more comprehensive study of how well school districts are promoting and designing dual language as well as traditional bilingual programs across the United States should be further researched. Additionally, as educators and scholars, we must continue to research how dual language and traditional bilingual programs impact students who are economically challenged students, English learners, first generations immigrant, Hispanic/Latino origin, as well as other students who do not fall under these demographic categories. Furthermore, it is also important for us to investigate the types of in-service trainings available to teachers of dual language and TBP programs across Texas and similar states. Through this research, school districts can ensure they implement the best designed language programs for students.

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