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**Do English Learners Benefit More than Other Students from Individual Graduation  
Committees? A Case Study of SB 149 at an Urban High School in Texas**

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## **Dedication**

This dissertation is dedicated to my family, friends, and colleagues:

- I. To my mother for role modeling empathy and a passion for helping others
- II. To my father for role modeling the utility of math and the scientific method
- III. To my maternal grandfather, Tye Cadman, a World War II pilot who was the best at everything he did. He imparted me the gift of leadership and poise when facing the rough stuff from life's sometimes elliptic, non-Euclidean geometry
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- V. To my Four Pack, my children, Winston, Julia, Maverick, and Maria, who without them I would be but an aimless drop, drifting alone in the rough, rude sea
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- XI. To Amardeep, the gentle brook where I whisper my secrets
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## **Abstract**

### **Do English Learners Benefit More than Other Students from Individual Graduation Committees? A Case Study of SB 149 at an Urban High School in Texas**

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State data indicate that English Learners (ELs) in Texas public schools have the lowest high school graduation rate of all student groups, including special education. A 2015 policy change however, may be working to close the graduation gap in the state between ELs and English proficient students. In May of 2015, Senate Bill 149 (SB 149) became law and established local Individual Graduation Committees (IGCs) to review academic data on students who have not met state standard in time for graduation on the state's End of Course Exams (EOCs). After the IGC's review, and under certain conditions, the committee may reduce the number of EOCs required for high school graduation from 5 tests to any combination of 3 on which the student has met standard.

A possible effect of this policy change is SB 149 and the associated IGC may provide greater benefit to ELs for public high school graduation than to English proficient students. Accordingly, I conducted a case study analysis at a large, urban high school in central Texas. My approach was based on several statistical techniques. Using Chi-square tests for independence I contrasted EL versus English proficient students for proportionality on graduation with and without the legislation. Next, I examined proportionality between ELs and English proficient students on the specific EOCs where the students applied SB 149 to graduate. Finally, I conducted a series of multiple linear regression analyses, including stepwise regression, to

determine whether EL language proficiency data that are provided annually by the state might predict success or failure for these students when they are facing their final attempt at meeting standard on their English 2 EOC, typically the most difficult EOC for ELs. Some of the results were unexpected, and a new direction in 2018 on the state's annual English proficiency test added intrigue to the study, making for a timely discussion of implications for current and future educational policy in the state.

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## **Chapter I: Introduction and Statement of the Problem**

Imagine being born and raised speaking, reading and writing English, and then suddenly your family moves to a country where the language, style of writing, and rules for grammar are completely new to you. You enter high school in your new country and you have only a handful of years to graduate. Your new country also has a series of high stakes exams for which you must demonstrate the same proficiencies on as the native students *or you will not graduate*. And imagine in your new country that the system is arranged such that if you do not graduate, your prospects for access to post-secondary education are dismal and dim, almost assuring you will be relegated to the service economy for your livelihood, household income, and so on— for the remainder of your life. This is precisely what English learners face in Texas as a result of custom, history, law, and current policy, all of which I explore in this study.

Chapter one provides a roadmap for the study. Here I describe the research problem and the purpose of the study, the significance of the study, and I introduce the research questions. In addition, a convenient list of terms is provided in case the reader is unfamiliar with the many acronyms used. Finally, I use this chapter to describe the linkages between state testing and graduation rates for English learners in Texas, setting the stage for analysis of Texas' Senate Bill 149 and the legislation's possible benefit for English learners.

Before moving forward, there are nuances to be reconciled here in the very beginning with the education jargon used throughout this paper, namely the terms EL and LEP, which are acronyms for English Learner and Limited English Proficient, respectively; also the terms SB 149 and IGC, acronyms for Senate Bill 149 and Individual Graduation Committee. In casual conversation, EL and LEP are often used interchangeably, despite the arguable differences between the two terms. Both terms will appear over and over throughout the study, and there is a

slight distinction to be made between them, which may be conceptualized as follows: English Learners (ELs) are students who are learning English because, linguistically, they are Limited English Proficient (LEP). It is important to clarify this conceptual distinction so that when looking at state data the reader understands that the state maintains LEP data as the reporting category on EL students. More precisely, when reviewing state data, the reader will *not* find an EL column. Rather you will see a *LEP* column where the state is reporting performance/data on *EL* students.

Similarly, in casual conversation, SB 149 and IGC are often used interchangeably, despite the differences between the two terms. Once again, both terms will appear over and over throughout the study. There is a distinction to be made between them, as well, which may be conceptualized as follows: SB 149 is Senate Bill 149, legislation that established IGCs, Individual Graduation Committees, such that students who fail one or two state tests (out of five) become “IGC students” and are reviewed by the eponymous committee during the spring semester before graduation. In lieu of passing all of their state tests, the IGC students may satisfy a number of requirements stipulated by the IGC in order to graduate. For state data and reporting categories, IGC is a new graduation code. In state reports where IGC appears, it signals that the student did not pass all the state tests and instead the student graduated IGC under SB 149. With an understanding of these distinctions, we continue next with the study proper.

English Learners (ELs) are the fastest growing student group in U.S. public schools, growing steadily since 2002 in all but 11 states (National Center for Educational Statistics, Digest of Education Statistics, 2014). In 2016 there were nearly five million ELs in U.S. public schools, a leap of more than 57% in under a decade (U.S. Department of Education, 2015). While comprising an estimated 14% of total public school enrollment in the United States,

students in EL programs tend to be more concentrated in urban areas and in western states, where California and Texas have the highest populations in the country. In terms of geographic distribution, larger cities tend to have higher populations on average across the country at 16.7 %, which is nearly double the average that is common in smaller cities, 9.4 % (National Center for Educational Statistics, 2016). Nonetheless, the obvious point of analysis is English Learner populations are nearly ubiquitous in public schools, coast-to-coast, and they are outgrowing all other student groups.

In Texas, from 1993 to the present, EL “enrollment have constituted an ever increasing proportion of the state’s public school population, [more] than an 82% gain . . . a growth rate that far exceeds the overall growth in state enrollments in PK-12” (Cortez & Johnson, 2013).

According to the Texas Education Agency, as of 2018 the state has more than 140,000 English Learners in grades 9-12 alone, and there are roughly 130 different heritage (home) languages spoken by Texas’ ELs. While Spanish is the most common language for EL families (89.8 %), families speaking Vietnamese, Arabic, and Burmese are becoming robust populations, comprising 3.4% of the remaining non-English languages spoken (Texas Education Agency, Research and Analysis Division, 2016).

While there is remarkable cultural and language diversity among ELs, as group ELs are economically and educationally disadvantaged compared to their English proficient peers. For example, EL students are much more likely to live in a low-income household. Contrasting EL and English proficient families, 66% of ELs have a family income below 200% of the federal poverty level compared to only 37% of English proficient children (American Youth Policy Forum, 2009). Further, ELs are less likely to have a parent with a two-year or four-year college degree: 22% of ELs have a parent with a post-secondary degree compared to 44% of students

from English-speaking households (American Youth Policy Forum, 2009). Similarly, with respect to college readiness, nearly a quarter of English proficient students score *At or Above* state criterion on the SAT and/or ACT exams, while only 1.4% of ELs meet or exceed the state's criterion (Texas Education Agency, Office of Accountability and Research, 2016a).

Recently the Federal commitment to ELs has been substantial for serving the needs of the growing English Learners population in Texas and across the country. The President's budget for fiscal year 2016 included over \$773 million for *English Language Learner Education, ESEA III, Part A* (Department of Education, 2016). In addition, to qualify for federal, the state and public school districts must devote additional local resources to maintain the organizational systems and processes necessary to implement the federal programs. And yet despite historically high funding levels and decades of developing programs that are targeted specifically by law to meet the cognitive, affective and linguistic needs of English Learners (Texas Education Code, Chapter 89, 1996), the problem for ELs is they trail their English proficient peers perennially in every measure of academic performance (Texas Education Agency, Office of Accountability and Research, 2016b; Texas Education Agency, Office of Accountability and Research, 2016a; Texas Education Agency, 2016a).

According to The National Assessment of Educational Progress (NAEP) data in mathematics, for all available years of data (1996 – present), the average mathematics scores for ELs 4<sup>th</sup> and 8<sup>th</sup> grade students were lower than their English proficient peers' scores. In 2015, the achievement gap in mathematics between EL students trailing non-EL students was 25 points at grade four, 38 points at grade eight (U.S. Department of Education, 2016a). In reading, for all available assessment years, the NAEP average reading scores for EL 4<sup>th</sup> and 8<sup>th</sup> grade students were also lower than the scores for their English proficient peers. In 2015, specifically, the

achievement gap in reading between EL students trailing non-EL students was 37 points at the 4<sup>th</sup> grade level and 45 points at the 8<sup>th</sup> grade level (U.S. Department of Education, 2016b).

Following the national trend, nearly all state educational data in Texas on ELs indicate that ELs struggle academically, lagging pointedly behind their English proficient peers in all apples to apples comparisons. While this paper will explore in detail the state's measures of EL performance, the principal aim of this paper is to study the *endgame* for ELs— the point in the student's public school journey where options, interventions, and time has run out: graduation. ELs lag noticeably in this regard from other groups for graduating on time within the student's proper cohort. To wit, state data on the graduating Class of 2014 showed that ELs had the largest gaps (scoring last) in graduation measures between subgroups, even when contrasted with At-Risk, Title I, Career and Technology, and even Special Education (Texas Education Agency, Office of Accountability and Research, 2016b), which suggests that having a limitation with English proficiency is a greater challenge for graduating than having a learning disability.

With the endgame, ELs struggle to graduate because they struggle to succeed on Texas' End of Course Exams (EOCs). The EOCs are Texas' content area tests (Algebra I, Biology, English 1 & 2, U.S. History) administered within the state's assessment system known as STAAR (State of Texas Assessments of Academic Readiness). The EOCs are proctored when the student has nearly completed, or has completed, the eponymous course. Many ELs do not graduate as a consequence. The stakes, obviously, are high on these tests— a student will not graduate without passing the required EOCs, regardless of perfect attendance, a spotless discipline record, or even an exemplary grade point average (GPA). Prior to 2015 and Senate Bill 149, which we take up in great detail later in this paper, a student had no other option but to pass all five state EOCs or the student would not graduate.

Meanwhile, EL performance on Texas’ EOCs is alarming compared to English proficient peers, which is illustrated by examination of what lies beneath the following press release. In June of 2015, a Texas Education Agency press release (Texas Education Agency, June, 2015) proclaimed enthusiastically that, “Most students taking STAAR end-of-course exams pass on first try.” The data table included with the press release showed that 94% of first-time testers in Texas passed Biology. This was impressive and was (and continues to be) a true fact— that is, at first glance. Unpacking the additional data, however, accessed from the link at the bottom of the press release, we find that what lies beneath the press release proper is a much different outcome for ELs, pointedly different than what was heralded in the headline.

When the underlying the data from the press release are restructured to compare apples to apples, e.g. LEP to NON-LEP performance (NON-LEP being English proficient students), the problem for ELs emerges instantly. English proficient students taking the Biology EOC for the first time had a passing rate of 95% in 2015, and the LEP students (ELs) were nearly *30 percentage points behind* with a passing rate of 67% (Texas Education Agency, Student Testing and Accountability, 2016). Also in 2015, as shown in the table below, there was a *50-point gap* between ELs and English proficient students on both the English 1 and the English 2 EOCs. In fact, over the five EOCs in 2015, the average passing gap between the EL and English proficient student groups was a staggering 35.4% (Table 1.1).

**Table 1.1**  
**First-Time Tested Students EOC Passing Rate: Spring 2015**

	<b>Algebra I</b>	<b>Biology</b>	<b>English 1</b>	<b>English 2</b>	<b>U.S. Hist.</b>	<b>Avg.</b>
NON-LEP	87%	96%	72%	74%	93%	84.4%
LEP	62%	72%	22%	24%	65%	49%
	<b>-25</b>	<b>-24</b>	<b>-50</b>	<b>-50</b>	<b>-28</b>	<b>-35.4%</b>

Source: 2014–15 State of Texas Assessment of Academic Readiness (STAAR) Combined Summary Report. <http://tea.texas.gov/staar/rpt/sum/>

One may conclude that yes, the press release was correct when it announced that “most students” in Texas pass their EOCs on their first try, but at the same time the press release failed to note that on average most EL students fail their EOCs on the first try and nearly 80% of ELs fail both the English 1 and English 2 EOCs on their first try. And when students fail an EOC, they enter into the retesting cycle where they must endure a series of retakes scheduled each Fall, Spring, and Summer session for every EOC they have failed until they succeed at them all. This cycle repeats all the way up until their final opportunity, which arrives in the Spring of their senior year. While the frequent retesting opportunities are a critical component for students seeking on-time graduation, the retests become wearisome, and ELs struggle each time out.

Further evidence, Table 1.2 shows data from the same Spring 2015 summary report from which the press release was drawn. Not reported in the press release was a pass rate in *single digits* on 2 of the 5 EOCs for which ELs who retested. On the English 1 EOC Spring 2015 retake, *statewide* only 95 ELs passed out of the 1192 EL students that were retested, which is an 8% pass rate. Results were basically the same with the English 2 (E2) EOC. On the upside, the reader may note the overall performance gap narrowed substantially between ELs and English proficient students on retesting from 35.4% among first-time testers to an average gap of only 9.2% on re-testers, suggesting that English proficient students struggle appreciably when retaking (and re-failing) EOCs, almost as bad as ELs.

**Table 1.2**  
**Retested Students EOC Passing Rate: Spring 2015**

	<b>Algebra I</b>	<b>Biology</b>	<b>English I</b>	<b>English 2</b>	<b>U.S. Hist.</b>	<b>Avg.</b>
Non-LEP	37%	51%	16%	16%	51%	34.2%
LEP	27%	43%	8%	8%	39%	25%
	<b>-10</b>	<b>-8</b>	<b>-8</b>	<b>-8</b>	<b>-12</b>	<b>-9.2%</b>

Source: 2014–15 State of Texas Assessment of Academic Readiness (STAAR) Combined Summary Report. <http://tea.texas.gov/staar/rpt/sum/>

The problem for ELs becomes clear, not from the peculiarities of a press release in the Spring of 2015, but when years of data are examined. *All* previous performance data from the state indicate that ELs have struggled since the beginning of EOC exams on *every* EOC test administration, *every* school year. The big problem for ELs in Texas is that meeting state standard on EOC exams is a requirement for high school graduation. It is not surprising, therefore, that ELs have the lowest graduation rate of all student groups in the state, including special education (Texas Education Agency, Student Testing and Accountability, 2016).

Best practice holds typically that assessments are warranted in content areas for both academic and English language proficiency and should be considered *concurrently* by those who make educational graduation decisions for all students and for EL students specifically (Ragan, 2006). In the case of the EOCs and graduation for ELs it appears these factors are not considered concurrently, and this is where my study's centerpiece, SB 149, intersects with the stated problem, that ELs struggle to graduate high school in Texas— i.e. prior to SB 149, it was not uncommon in Texas for an EL student to demonstrate academic proficiency at state standard by passing the mathematics, science, and social studies EOCs but still not graduate because of scoring lower than standard on one of their English EOCs, no matter how close to the standard the EL student scored. The point being, SB 149 has changed state policy, and regardless of the legislative intent, my study is leading with the notion that SB 149 may have alleviated the graduation problem for ELs in some amount.

As noted earlier, prior to SB 149 *all* students were required to pass *all* EOCs to qualify for high school graduation. The EOC exams are administered for Algebra I, Biology, and English I during grade 9; English 2 during grade 10; and U.S. History is administered during grade 11. The requirement of the state tests to graduate had been in place for decades, that is

until suddenly, near the end of the school year in 2015, Texas Education Commissioner Williams announced, “With Governor Abbott’s signing of SB 149 on May 11, 2015, there are immediate and significant changes to the state’s assessment graduation requirements” (Commissioner’s Letter, 2015).

Significant indeed. SB 149 upended the state’s assessment graduation requirements by introducing the *major* change that now the state was willing to take a mere *3 out of 5* on passing EOCs for graduation. Effective immediately, by proclamation the Texas Commissioner of Education announced, “Students enrolled in the 11th or 12th grade for the 2014-15, 2015-16, or 2016-17 school years, where during this term the student may pass 3 out of the 5 state EOCs (End of Course Exam) and graduate after stipulations are met as determined by a review from the campus’ Individual Graduation Committee (IGC)” [TEC, §28.0258(a) and (l); 19 Tex. Admin. Code § 101.3022].

What produced SB 149, in terms of the predicate for such a sweeping, rapid change in state policy, was the urgent need to inoculate the statewide graduation rate, preemptively, against the impending impact of the EOC results for 2015, in other words, *before* disaster struck, and SB 149 did exactly that, instantly. The new legislation meant students could graduate by meeting standard on any three of the state’s five EOCs, English 1 (9<sup>th</sup>); Algebra (9<sup>th</sup>); Biology (9<sup>th</sup>); English 2 (10<sup>th</sup>); and United States History (11<sup>th</sup>). For several decades prior to SB 149, failure on *any* state assessment was a road block to graduation, keeping thousands of Texas high school students behind, and in particular, thousands of ELs. Other graduation criteria, such as course grades, good attendance, staying out of trouble, and additional diploma stipulations are surmounted typically by most students making reasonable, good faith efforts to do so, including ELs, but EOCs were an obstacle all their own, impenetrable for too many. In terms of timing,

just when the EOC requirements were maturing, blooming into their full effect as scheduled for 2015 with the implementation of higher state standards on the tests, which had been increasing each year, with each year's test being slightly more rigorous than the previous, SB 149 was hastily passed by the legislature in early 2015 as an antidote for the Class of 2015.

Students in Texas have as many as *nine* re-testing opportunities on three of their EOCs, and many as well on the others, and yet entering the spring of 2015 tens of thousands of seniors had not passed all 5 EOCs and were not going to graduate. That is, until SB 149 swooped in for the rescue, which raised several issues and questions. To explore the issues and questions that arose with this new policy, in particular with respect for ELs and the new legislation, the commitment of this study was to identify a school ripe with ELs and by case study examine the issues, possibly leading to more questions, new directions, and even further study.

This was warranted because the change from SB 149 was so dramatic that it was likely to be in the betterment for ELs. So much so that in effect SB 149 might possibly be described as a school reform, albeit a narrow and specific school reform when compared to the girth and scope of other school reform initiatives. Yet lean as it may be, SB 149 may yet prove to be the most effective school reform in Texas history for increasing graduation rates for all students and especially for ELs. In that regard, an unintended effect of the bill may be that ELs benefit more from SB 149 than any other student group. This study was developed precisely to explore this premise and discover whether my prognostication is supported by data. I sought to uncover what the data say about English proficiency and graduating high school under the new rules. I selected a real-life school as my unit of analysis and began a case study to determine the extent to which SB 149 benefitted ELs.

## **Purpose of the Study**

The purpose of the study was to investigate the degree to which English Learners benefitted from SB 149 and analyze the major issues that resulted when ELs applied the legislation to graduate. Guided by the optics of English language proficiency, I sought to determine whether there was an increase in the graduation rate for ELs at the target school that was uniquely attributable to SB 149 and by extrapolation, generalizable to the state. A related area of inquiry for the study was on how the students would apply the legislation, or rather where, meaning for which EOCs, and whether English proficiency was a factor. And finally, I would use the study to examine whether state data on language proficiency levels (e.g. beginner, intermediate, advanced, advanced high) would predict whether an EL student would need SB 149 to graduate.

From the discussion earlier in the chapter, when compared to their English proficient peers, ELs consistently underperform in Texas across all performance measures. By far the most critical gap is the gap in high school graduation rates. Statewide for the class of 2014, for example, the four-year graduation rate for students identified as English learners (71.5%) were lower than the state average (88.3%), and lower than the 77.5% average for students in special education programs (Texas Education Agency, 2015). A year later in the spring of 2015, along comes SB 149, which, in a nick of time for the class of 2015, reduced the number of EOCs required for graduation from 5 to 3. When this relief valve opened, the four-year high school graduation rate improved immediately for all groups. Even so, graduation rates for students identified as English learners, 73.3% in 2015, were again lower than for students in special education programs, 78.2%, and still again much lower than the state average graduation rate of

89.0% (Texas Education Agency, 2016a). Illustrated in Table 1.3 is a head-to-head comparison of graduation rates from the year before and the year after SB 149.

**Table 1.3**  
**Statewide Graduation Rates/Year Before\*Year After SB 149**

	<b>Class of 2014 (Before)</b>	<b>Class of 2015 (After)</b>	<b>Percent Change</b>
ELs	71.5%	73.3%	+1.8
Special Education	77.5%	78.2%	+.7
State Average	88.3%	89.0%	+.7

From the table above, graduation rates went up across the board after SB 149. Yet whether before or even after SB 149, a persistent double-digit performance gap continues to the present day for ELs on the statewide graduation average. Encouraging with the data above, however, is that from the class of 2014 to the class of 2015, the data indicate graduation rates *within-group* for ELs increased substantially, compared to within-group performance increases for other groups. In fact, under SB 149 the EL four-year graduation rate improved nearly 2.5 times the rate of increase seen with the increase in the state average and seen with the increase for the special education population. The data in Table 1.3 corroborate that SB 149 made an instant, attention-grabbing impact on EL graduation rates to a degree that warranted further investigation. In part this was the genesis of my study, which came from a series of real-time observations I experienced at the target school while working amid the before/after maelstrom around SB 149.

As I noted earlier, graduation for ELs is the bottom line. All other data fall into the *helpful to the quest category*. Graduation data, however, are what K-12 education is defined by

and built upon. Ever observant of this and aware of the disadvantages ELs have when taking tests in a language other than their heritage language, I wanted to learn if ELs benefitted as much from SB 149 as the initial data suggested. This pursuit, therefore, became the core purpose of the study.

To summarize this section, the aim of the study was to explore the effects on EL graduation rates of SB 149 as a new school reform policy in Texas. Historically, having limited English proficiency has been the main barrier with ELs for graduation (Menken, 2008). Meanwhile, since the 1980s it has been commonly accepted by experts that mastering English requires five to seven years, in terms of cognitive academic language proficiency (V. P. Collier, 1987), and it is a given that “standard English is the language of school and the “lingua franca” of peoples and commerce (DelliCarpini, Ortiz-Marrero, & Sumaryono, 2010), which is why in Texas, prior to SB 149, demonstrating advanced English proficiency at state standard was a high bar for *all* students and a longshot for ELs.

The resulting underperformance as discussed herein with ELs comes at a price: the high-stakes consequences attached to standardized tests, the EOCs in Texas, in combination with consistently lower test scores among ELs, the tests greatly impact the instruction and educational experiences of ELs (Menken, 2008). Along these lines, many studies have addressed the underperformance of ELs on standardized testing and the effect on both the student and the learning community. This paper accepts *a priori* the findings of previous studies that the effects of standardized testing on ELs are adverse (DelliCarpini, Ortiz-Marrero, & Sumaryono, 2010; Menken, 2008). What is new and became the purpose of this study, therefore, was to explore whether ELs *benefitted* from and graduated because of the relief offered by SB 149. In other words, where other studies demonstrated how policy is harmful to ELs and policies on state

testing are costly to ELs, this study aimed to show that SB 149 might be going the other direction for ELs. To that end, I developed the following research questions to guide the study:

### **Research Questions**

1. At the target school, did ELs apply SB 149 in proportion to English proficient students to graduate by Individual Graduation Committee (IGC)?
2. Was there significant variance between EL and English proficient IGC students on the specific End of Course Exam(s) for which the students applied SB 149 to graduate?
3. Were data from the Texas English Language Proficiency Assessment System (TELPAS) useful in predicting success or failure on an EL's final attempt to pass the English 2 EOC before graduating under SB 149?

### **Significance of the Study**

The significance of this study is it delivered inceptive research. Until this study the research community had not offered data or literature around SB 149 or, what is more, SB 149 and ELs. Outside this study, the phenomena of ELs relying on SB 149 to graduate high school in Texas is under-reported, which is surprising given how many ELs there are in Texas and the surprising nature from how quickly the policy change SB 149 came to be. One would think there is quite a story here to be told— and with ample space for many authors.

To gain perspective on the significance of this study and how consequential the policy change is, the shift from the state's long standing policy on testing to SB 149, the reader is informed that since 1984, Texas held firm on an expectation that success on the state exam(s)

was the ticket to graduation. The state exams, or high stakes testing, as the phenomena are known, were built to be a rigid, iron wall between students and their graduation where for decades the ticket through was meeting standard on the state test(s). By law, to scale the wall, so to speak, the students had to meet state standard on their scaled scores on the state test, a practice that began back in 1985 with the TEAMS test (the Texas Education Assessment of Minimum Skills), which was the first state sponsored assessment to be linked to graduation. Beginning with TEAMS, students might pass their courses and meet all other criteria but would be denied their diploma without success on the state exam, no exceptions.

The practice of linking the state test to graduation continued with little political challenge. The tests evolved in rigor and breadth over the coming years, through several eras and iterations, from TEAMS, to TAAS (Texas Assessment of Academic Skills), to TAKS (Texas Assessment of Knowledge and Skills), to the present day STAAR EOCs (State of Texas Assessments of Academic Readiness End of Course Exam). Not a soul was spared from passing these tests until SB 149 paved a multi-lane highway through the iron wall, toppling onto its crown a reign of 30 years from the high stakes testing regime in Texas.

The passage of SB 149 was a significant moment in both statecraft and in state educational history, and as such, this study is significant because it is the first to examine this legislation in real time and with it the attendant implications for policy and practice regarding ELs. As I mentioned earlier, many other research studies have shown how ELs struggle with high stakes testing and many have concluded that high stakes tests as currently constructed are inappropriate for ELs (Menken, 2008; Solorzano 2008)— and most disturbing is that using the results of high stakes tests to make high stakes decisions for ELs often have adverse consequence (Solorzano, 2008). To recap, EL students with graduation on the line have been staring down the

barrel of multiple high stakes tests for years, administered in a language not their own, making them foreign by nature and not fully accessible.

Making this study significant is the literature is scant or non-existent about how particular testing policies *benefit* ELs. The findings of this study will likely highlight benefits to ELs and provide encouragement for ELs to stay in school, continue to grow their English proficiency, and continue their education *after* high school no matter what happened on one or two of their state EOCs. For the significance of this study, the data showed that SB 149 is helping ELs, and the research community should be informed. It is imperative that *all* actors who are connected to educating students in Texas have an understanding of how SB 149 affects the students and have some understanding of how the winners and losers tally up under the new policy. And regarding winners and losers, yet another significance of this study is it contributed to an understanding of the distinctions with how ELs a) applied the policy and graduated, b) did not apply the policy and graduated (i.e. did not need SB 149), and c) those who neither applied the policy nor graduated.

Finally, the study is significant personally to me, the researcher. I am a public school educator who has served and advocated for large populations of ELs in Texas schools for over 25 years. I have observed a pattern where brilliant, hardworking ELs struggle with state tests and struggle to graduate. I have observed how the high stakes tests stress ELs to the point where they seem resigned that the college dream is for natives only. How many native English speakers view college as a long shot? My advocacy for EL students is woven tightly throughout this study, making the study personally significant. That said, I encourage stakeholders, educators, policy analysts and writers, and politicians to reflect on the data and findings herein along with other data known from other studies and reflect on information observed from their own

experiences, and pull it all together to more meaningfully internalize the challenges for ELs—challenges that in time further policy changes might further address. In the end, the significance of this study may be only that it showed there was an instance in real life at a target school where the fortunes of a few dozen ELs improved from SB 149. However, I am confident that a full telling of this tale over the course of the next four chapters will demonstrate there is significance with this study, and the implications for policy and practice in the state are far reaching.

### **Definition of Terms**

- **ACCOMMODATIONS.** Accommodations, or designated supports, are changes to materials or procedures that enable students to access learning and testing. While some accommodations may be appropriate for instructional use, they may not be appropriate or allowable on a statewide assessment (Texas Education Agency, 2017a).
- **ARD.** Admission, Review and Dismissal (ARD) Committee. In Texas, ARD Committee is the name for the group made up of a student’s parents and school staff that meet at least annually to decide whether or not the student has an eligible disability and what special education and related services will be provided. Its major responsibility is the development of the Individual Education Program (IEP) for students receiving special education (Texas Education Agency, 2018a).
- **ASYLEE/REFUGEE.** Defined by 45 Code of Federal Regulations §400.41 or a refugee as defined by 8 United States Code §1101; has a Form I-94 Arrival/Departure record, or a successor document, issued by the United States Citizenship and Immigration Services that is stamped with "Asylee," "Refugee," or "Asylum"; and as a result of inadequate schooling outside the United States, lacks the necessary foundation in the essential knowledge and

skills of the curriculum prescribed under the TEC, §28.002, as determined by the LPAC (Texas Education Code, Chapter 101, 2017).

- **AT RISK.** A student is identified as at risk of dropping out of school based on state-defined criteria (§TEC 29.081), such as not advancing from one grade level to the next, being homeless, pregnant, or on probation— or being an English Learner (Texas Education Code, Chapter 29, 2016).
- **BILINGUAL PROGRAM.** Provides for the establishment of bilingual education and special language programs in Texas public schools and provides supplemental financial assistance to help school districts meet the extra costs of the programs to ensure a full opportunity for all students to become competent in speaking, reading, writing, and comprehending the English language (Texas Education Code, Chapter 29, 2016).
- **EL.** English Learner. (Note: for the needs of this paper, Limited English Proficient (LEP), English Learners (ELs), and English Learners (ELs) are combined categorically as ELs in the paper.)
- **EOC.** End of Course Exam. See STAAR EOC for details.
- **ESEA:** Elementary and Secondary Educational Act. The ESEA of 1965 was enacted to provide federal aid to schools with high concentrations of low-income children (Wong & Nicotera, 2004).
- **ESL.** English as a second language
- **HERITAGE LANGUAGE.** Languages other than the dominant language (or languages) in a given social context. In the United States, English is the *de facto* dominant language (not an “official” language, but the primary language used in government, education, and public communication); thus, in the U.S. any language other than English can be considered a

“heritage language” for speakers of that language (Wiley, Kreeft Peyton, Moore, & Liu, 2014).

- **HSX.** High School X, the pseudonym for the high school that was the subject of this study.
- **IEP.** Individual Education Plan. IEP is the written plan that details the special education and related services that must be provided to each student who receives special education, including the terms of graduation, which may exempt the student from meeting standard on state testing. Parents and school personnel write the IEP at the ARD meeting (see above). The IEP must be reviewed and revised, if needed, at least every year.
- **IGC.** Individual Graduation Committee.
- **ISD.** Independent School District.
- **LEP.** Limited English Proficient. (Note: for the needs of this paper, Limited English Proficient (LEP), English Learners (ELs), and English Learners (ELs) are combined categorically as ELs in the paper.)
- **LOTE.** Language Other Than English
- **LPAC.** Language Proficiency Assessment Committee
- **NO CHILD LEFT BEHIND.** The *No Child Left Behind Act* (2001) mandates educational equity for all K-12 students, including English Learners (ELs) as described in Title III (Hetzl, 2007)
- **PEIMS.** Public Education Information Management System encompasses all data requested and received by the Texas Education Agency about public education, including student demographic and academic performance, personnel, financial, and organizational information.
- **PET.** Punctuated Equilibrium Theory.

- **SB 149.** Senate Bill 149. Reduced the number of EOCs required to graduate from five to three. In lieu of passing all five EOCs, students passing any combination of three provided the student has the approval of and meets the stipulations from a local Individual Graduation Committee (IGC).
- **SIFE.** Students with Interrupted Formal Education.
- **STAAR.** State of Texas Assessments of Academic Readiness. The assessment system in Texas where at grades 3–8, students are tested in mathematics and reading. Students are also tested in writing at grades 4 and 7, science at grades 5 and 8, and social studies at grade 8. Grades 9-12 are tested by EOCs (see above). **STAAR EOC.** While in the lower grades the state test is call the STAAR exam, for upper division courses the state made EOCs (see above) available for Algebra I, geometry, Algebra II, biology, chemistry, physics, English 1, English 2, English 3, world geography, world history, and U.S. history. Beginning in 2013, the state required students to pass Algebra I, biology, English 1, English 2, and U.S. history to graduate.
- **TASB.** Texas Association of School Boards.
- **TEA.** The Texas Education Agency.
- **TELPAS.** Texas English Language Proficiency Assessment System.
- **TITLE I.** Part of ESEA, Title I enabled local school districts to provide services and programs which they were unable to provide to meet the special educational needs of educationally disadvantaged children. The purpose of the Title I program was to improve equity and access for economically disadvantaged students, including English Learners (Wong & Nicotera, 2004).

- **TSI.** Texas Success Initiative— a program in Texas that yielded an online college entrance or college readiness exam required for admission by many of the state’s post-secondary institutions.

### **Limitations, Delimitations and Assumptions**

**Limitations.** Limitations of the study may include the choice of statistical models used for the research design, the sample size, and the selection of the theoretical framework. I used the Chi-square test for independence and multiple linear regression in this study. These are relatively modest statistical tools. However, the Chi-square test for independence was the appropriate test where used, as was multiple linear regression. Multi-level or hierarchical linear modeling were not necessary to answer the research questions.

Another, most important limitation is the small sample size in the study. The target school for the study was a large urban high school in central Texas, which I shall call High School X, or “HSX,” here forward in the study. The small sample size was from both the over-all size of the graduating cohort and the number of ELs graduating within the cohort. This left me with having only dozens of ELs among the hundreds of graduates for a case study at HSX, rather than a preferred hundreds of ELs among thousands of graduates in a large, multi-campus study. This limitation concerned me the most with the study and was my greatest challenge with conducting the study. The size question with the data could potentially contaminate the issue of normality with linear regression and could have been a serious problem. I address and test this concern in full detail in chapter three, but for the moment suffice to say that the small sample size, small as it was, proved just large enough to meet the assumptions of normality and be of statistical utility for the study.

Regarding the choice of Punctuated Equilibrium as the principal framework for the study, those looking for the latest in vogue with research may criticize this framework as being a relic from the 1970s and 80s, a distant past, and to different critics Punctuated Equilibrium is overly post-positivistic, and to still others it is just *bad scientific poetry* (Ward, 1998). Having the wrong framework is a plausible limitation, one to consider at least to appease the critics of Punctuated Equilibrium Theory, in that arguably there are other, much more contemporary ways of seeing. For example, those approaching the data and the research questions from either an interpretivist, post-structural, or critical race theory perspective might arrive at different findings and conclusions. My counter argument is that the 1970s and 80s were cool, and no other framework can provide a superior articulation today for the unique and historic events at hand with SB 149, at least as I pounce and pronounce them in this study.

**Delimitations.** A delimitation for the study is that I chose to initiate a case study of a single graduating class, at a lone high school, from one Individual Graduation Committee, spanning solely but one school year. This was intentional. In part because the school (HSX) is truly representative, demographically, of all Texas Title I schools in the urban areas and across the state (AEIS 2012). Mostly, however, the frontier I charted was intentionally mapped to HSX as the lone unit of analysis for the case study, this one school, because the hurdles for acquiring the necessary permissions to conduct a large-scale study across a district or state, frankly, exceeded my capacity as researcher. Thus limiting the scope of the study to one high school, while for good reason, was the major delimitation.

An additional, minor delimitation worth noting is throughout the study I represented the educational conditions as they were during the period under study. Some of those conditions have since changed—e.g. performance standard descriptions, cut scores on EOCs, allowable

EOC accommodations, and other details have changed in Texas between 2016 and the present day— and they will continue to do so. Even state policy on TELPAS changed during the study. Therefore, references to policy in some instances are intended to mean policy apropos to the context, much of which is 2016, the cohort under study. In other instances, chapter five, for example, it becomes clear that the discussion is current, in the context of 2019, with the latest information at hand.

In sum, the choice of describing some sections under the bounds of old policy was to capture HSX in that context at that point in time and to serve as a point of comparison for other research in other contexts in other times and under new and evolving conditions in the state. Finally, with respect to delimitations, the data analyses for the research questions are limited to *graduates* from the target school’s 2016 cohort. Not all seniors from 2016 are included. Many students were intentionally excluded from the data set because their circumstance was not apropos to the scope of the study, as I explain in chapter three.

**Assumptions.** There is but one assumption that underlies the entire study. The fundamental, non-negotiable assumption engrained throughout this study is that students’ academic capacities, abilities, and performance potentials are distributed evenly across all populations. I assume that between EL and non-EL student groups the academic performance potentials between the two populations (e.g. IQs) will always demonstrate the same variance. This assumption may be referred to as the assumption of homogeneity of variance (Gaillard, 2009). I reject any notion that student performance characteristics are in any way privileged toward one race, one ethnicity, or one language.

## **Summary of Chapter I**

The purpose of this study was to explore the impact of SB 149 on English Learners at an urban, Title I high school in central Texas. The study focused on how the selected school's Class of 2016 fared when using SB 149 as a means to circumvent some of the EOCs in Texas and thereby graduate under the approval of the campus' Individual Graduation Committee (IGC). To understand how the resulting graduation rates for both EL and English proficient students were affected, the study contrasted ELs and English proficient students in the degree to which they applied SB 149 to graduate. The study also contrasted ELs and English proficient students regarding which EOCs they failed to meet standard on and thus needed to apply SB 149 to graduate. In addition, the study examined the utility of the already existing data on ELs from the state's independent English proficiency tracking system, the Texas English Language Proficiency Assessment System (TELPAS), to forecast which EL students would need to apply SB 149 to graduate.

## Chapter II: Review of Literature

On any standard microscope there are 3 or 4 objective lenses that one can rotate around through a series of desired powers, such as 4x, 10x, 40x and 100x. Using this type of microscope to conduct a study, the researcher would use one or another of the specific lens, as needed, and record the observations. Similarly, in this chapter, as I provide my review of the literature related to English Learners and SB 149, I will do so by rotating through a series of different lenses in a manner where I select the lens that is most apropos for a particular aspect of the study, zooming in and out to establish *the way of seeing*, as needed for the study. I have used 3 main lenses for the chapter, which I have dubbed *power*, *plight*, and *punctuation*, to be forged and founded in this chapter and refrained later in the study. My review of literature begins with a conception of *power*, where language is power, is capital, in terms its schema, where language is the provider and shaper of all the mental patterns and processes that ignite cognition and animate consciousness and regulate emotions. Specifically, I focus on the influence of language on students, as learners, ontologically and epistemologically, regarding how our language determines who we are, and what we can learn from— and what we can do with— the power, the capital, that one amasses from a having an outsized, personal agency with language, particularly when that agency exceeds the agency of one’s rivals. Therein lies the *power*.

For the *plight* lens, I describe the demographic arc and the trajectory of ELs within a chronology of related historical events, from roughly the progressive school era up to modern day, which together (demographically and chronologically) establish the context in which ELs are situated, ready and ripe for this study in present times. My discussion of *plight* also includes a review of policy and political theory points, in general, that are pertinent to ELs in the present day. Next, the third main lens I use, *punctuation* provides an in-depth look at SB 149 and how it

punctuated the status quo, burst into being and recently changed the lives and trajectories of tens of thousands of students and ELs in Texas, perhaps forevermore in the state, providing an obvious *raison d'être* for the study. Finally, I also include in this chapter a summary of the gaps in existing research and offer further exposition regarding the principal and guiding framework for this paper, Punctuate Equilibrium Theory (PET). And now, my review of literature begins in earnest with a quote from Austrian-British philosopher Ludwig Wittgenstein.

### **Language as Capital**

The limits of my language are the limits of my world . . . logic fills the world . . . that world is *my* world, shows itself in the fact that the limits of the language mean the limits of *my* world.

– Ludwig Wittgenstein, 1933

In this quote, Wittgenstein established that there are linkages essentially between language and experienced reality. His observation came in his signature work *Tractatus Logico-Philosophicus* (1921). Language to Wittgenstein was the purest form of capital. In one context, the word ‘capital’ can mean *punishable by death*; but in terms of language and in terms of Wittgenstein here in this chapter, capital is an asset, where command of language is its own capital that affords the actor more than a store of useful assets and advantages, depending upon the actor’s command of language. The capital from language, therefore, is coined only from one’s unique command of language. One’s command of language is a tremendous personal utility that allows for and produces personal agency— as well as the attendant self-efficacy. Indeed today, for a contemporary example, if one understands *perfectly* and is able to speak and

write *effortlessly* binary code, the digital language of machines, one's riches are likely to be measured in the several billions. In this view, language is the purest capital, a most critical asset that a human actor must have to connect meanings, be understood, seek understanding, discover ideas, and to innovate. The capital derived from one's personal skills with language will allow for the very act of *being*—ontologically, in terms of being human, in terms of living and functioning as a thinking, rational being, above the animals, one who understands and studies his/her own existence.

### **Logic, Order, and Agency from Language**

Some believe that language is a reflection of thought, not the other way around. This is false. When Wittgenstein introduced his theory, he stated principally that it is language that determines all perceivable dimensions of the actor's reality, within his/her environment, concurrent with the act of being within the self— which includes, of course, functioning within the actor's limits, whether the actor is aware of his/her limits or not, and affecting the disposition of the actor's choices and behavior within reality (Wittgenstein, 1933). Command of language, therefore, is command of concepts, and limits in language thus hinder conceptualization. Similarly, other twentieth century scholars and philosophers have sought understanding with the chicken and egg of language. As early as 1916 in the *Course in General Linguistics*, Ferdinand de Saussure contemplated how to unlock and describe the capital derived from language. For Saussure, language was central to capturing and creating all the necessary signs and their appropriate significations required for verbal expression and required for executing logic, e.g. making sense of order, conversing with a friend, processing the emotions in the human journey, traversing reality, or simply enjoying a good book — in short, for de Saussure, language

comprises and completes all circuits required for human thought, ideas and/or expressions (de Saussure & Harris, 2013).

Saussure surmised that every word in language is a signifier that has a companion signified (de Saussure & Harris, 2013)—i.e. each of Plato’s forms actually has a language cue. The signifier, the cue, is a sound made by a human. For example, the sound when someone reads aloud in English the word “tree.” For those who understand English, hearing *tree* matches with a particular, signified, a companion concept for the sound, i.e. the signification is the matching conceptual construct, the mental image, the memory, or the physical presence and touch of a tree when the sound *tree* is heard. And vice versa. Again, to Saussure, every signified (concept) has a signifier (sound cue or language association), and language, therefore, is an ongoing chain of sign and signification produced from individual links, which, in the plural, are from the infinite signifiers for the equally infinite signifieds.

In this way, human agency, being a state of action amid free choice, the capacity of an actor to act in a given environment, or of exerting or extracting power in a particular context. For example, for his will to be done, through conversation and negotiation, Person A may speak or utter a string of signifiers to Person B. If they share a common language, Person B would instantaneously and contemporaneously decode the signifiers Person A has stitched together via the spoken word, speech. Person B would appropriately link and match the signifiers from Person A to the signifieds in Person B’s consciousness, similar to the manner in which each word on this page is imprinting itself as a signifier, making a *sound* in the reader’s mind, connecting appropriately with the corresponding signifieds, matching concepts to those in the library of the reader’s vocabulary. When I switch signifiers, algunos lectores siguen entendiendo. If I switch again, labda wachache tu wataelewa. Run the second clause of each of the previous

two sentences through a Spanish and Swahili translator, respectively, and the point is made: signifiers matter.

My point is that without common language, folks can't understand each other. For example, conversation from Person A's lips to Person B's ears occurs only when the signifiers for each match the signifieds for each. When that happens, Person B might then reply or do as Person A had bid— unless, that is, Person B does not share the same language as Person A. In this case, a mismatch occurs, and the signifiers from person A fail to match any of the signifieds residing within person B, and conversation between the two devolves to nothing more than the two persons uttering unrecognizable, foreign sounds at each other, with neither understanding the other. Conversation, therefore, requires mutually understood rules on signifiers and signifieds and agreement for precisely what are intended for each— i.e. a common language.

Common language, in addition to Person A being able to communicate with Person B, a common language affords *any* actor additional capital from two connected treasures from language: ideas and organization. From ideas, industry is born; from organization, societies evolve. Without this capital (without language) all thought and sense of being are nothing more than empty wasteland, consisting of random linkages between stimuli and emotion. Before language— imagine such a time— there were no ideas, there was no recorded knowledge, and there was no discernable order to things. According to Saussure, “without language thought is a vague, uncharted nebula. Psychologically our thought— apart from its expression in words—is only a shapeless and indistinct mass” (de Saussure & Harris, 2013). In Saussure's *Course in General Linguistics*, he further reasoned, “There are no pre-existing ideas, and nothing is distinct before the appearance of language.”

Decades later, Noam Chomsky, added immensely to the discussion when he wrote his ideas on the capital of language. Chomsky's logic *evolved* over his career and therefore was revealed in pieces and grew in parts scattered across a number of his many works. Particularly, in *On Language* (Chomsky, 1998), the capital Chomsky identified in language is that language facilitates a series of cognitive functions central to ontology and human expression. Chomsky rejected behaviorist assumptions about language as a learned habit, and he proposed instead to explain language comprehension in terms of mental grammars consisting of rules (Thagard, 2014). These ideas greatly influenced and helped create the cognitive psychology and neuropsychology that remain in practice today (N. V. Smith, 1999).

It is not surprising that Chomsky's fierce rival and contemporary, B.F. Skinner, evolved disparate theories on language that contradicted Chomsky. For Skinner, language was learned from environment like any other cognitive behavior (Sagal, 1981). In *Verbal Behavior* (Skinner B.F. 1904-1990, 1957) the author wrote that verbal behavior is "behavior reinforced through the mediation of other persons," and he further opined that a host of different functional units exist in verbal behavior. The units and the process of assembling units into phrases and sentences depend upon the environment and the verbal community, where conception of a verbal community is a prerequisite for the acquisition of verbal behavior (Matos & da F. Passos, 2006).

In this manner, characterizing verbal community and verbal behavior, Skinner introduced a group of verbal operants of language, or functional units as referenced above. Skinner explained that language could be analyzed into a set of these units, with each type of operant serving a different function. He identified various types of verbal operants/functional units—receptive (understanding), echoic (mimicking), mand (requesting), tact (labeling), intraverbal (conversing), as well as textual (writing), transcriptive (copying text)—which function as

components of more advanced forms of language (Sundberg & Michael, 2001). These components of language, Skinner argued, are necessary for effective verbal communication, emphasizing a unit of analysis consisting of the relations between behavior, motivation, conditions, and consequences (Salzinger, 1973).

From Chomsky, however, there was only complete disagreement with his colleague Skinner. With his firm belief that language is innate and its capital is accessible via universal grammar, he wrote an obvious barb for Skinner in his book *The Modern Mind*, “It is quite possible . . . that we will always learn more about human life and personality from novels than from scientific psychology” (Chomsky, 2008 p.249). His argument was that language, rather than being learned behaviorally, unit by unit, was instead *being*; it was innate – each human actor is born with this asset, the ability. Chomsky described language as a form of natural capital from a *universal grammar*. He first introduced his concept of universal grammar when he presented an essay on language at Loyola University in 1970. During his presentation, Chomsky said:

A person who knows a language has acquired a system of rules and principles – a “generative grammar,” in technical terms – that associates sound and meaning in some specific fashion. There are many reasonably well-founded and, I think, rather enlightening hypotheses as to the character of such grammars, for quite a number of languages. Furthermore, there has been a renewal of interest in “universal grammar,” interpreted now as the theory that tries to specify the general properties of those languages that can be learned in the normal way by humans. Here, too, significant progress has been achieved. The subject is of particular importance. It is appropriate to regard universal grammar as the study of one of the essential faculties of mind – Noam Chomsky, 1970

Each of these three scholars, Wittgenstein, Saussure, and Chomsky appreciated the power of language and described it as the purest form of human capital, where a command of language gave man the power to communicate and, more importantly, gave man the power to create. Chomsky concluded that the capital of language provided man “a process of free creation; its laws and principles are fixed, but the manner in which the principles of generation are used is free and infinitely varied. Even the interpretation and use of words involves a process of free creation” (Chomsky, 1970).

Moving this discussion from linguistics to another camp entirely, philosophy, in his work Distinction: A Social Critique of the Judgment of Taste, Pierre Bourdieu (who credits Wittgenstein as his main influence) observed language as power, and for Bourdieu a command of language was necessary to maximize one’s capital when taking position in society (Bourdieu, 1984). In this approach, Bourdieu’s assessment was that logic, order, and position (agency) are achieved from demonstrating advanced language proficiency. Speaking with the “proper” accent and mannerism in a society, for example, must be authentic and must not be acquired as an affect of speech, a false pretention, or come across as some strained effort to speak too correctly. In this example, *affect* means the context for the speech application between what is being said, and how what is being said is being perceived—e.g. for one to “sound” wealthy one needed to *be* wealthy. For Bourdieu, affectations or imperfections in utilizing language are evidence that one’s capital was acquired only yesterday, if it had been acquired at all. To Bourdieu, these affectations exposed the actor, revealed the limits of his/her capital— other examples are someone dim trying to sound smart, new-money trying to sound like old-money, or a white suburban teenager trying to sound like a Compton rapper— and exposed the flaws in the actor’s production of

logic, order and agency, which spoke to the overall shortcomings of the life the actor led. These distinctions stemmed from the actor's use of language as assessed by others who had achieved position in society by similar rites and rituals.

There are other scholars, as well, Claude Lévi-Strauss, Roman Jakobson, and Jacques Lacan, for example, who contended in their own way that language is essential to the functions of logic, order and agency, and I will add on their behalf, power, and influence. For these structuralists, language is the central utility that underlie all discourse and all the things that humans do, think, perceive, and feel. Inevitably this results in power differentials among the actors, largely determined by the limits of language, which brings in the post-structuralists. Michele Foucault, for example, arguably the most celebrated post-structuralist, treated all discourse as a mode of organizing knowledge, ideas, and experience that are rooted in language and its concrete contexts that ultimately produce power and knowledge that are utilized by elites to construct institutions as mechanisms for social control.

And again, as with the other scholars referenced, it all points back to language to either explain or assign causation for the production of logic, order, and agency. In the section of The Order of Things "Man and His Doubles," Foucault explained that the object of the human sciences is man itself, who from the interior of language represents to itself with a representation of language (Foucault, 1966). The previous sentence is difficult to unpack, but in simple terms what Foucault is saying in effect is we have a chicken and egg with language, which produces everything else, and language is both the chicken and the egg. In keeping with this, Foucault wrote:

For those who wish to achieve a formalization, language must strip itself of its concrete content and leave nothing visible but those forms of discourse that are universally valid;

if one's intent is to interpret, then words become a text to be broken down, so as to allow that other meaning hidden in them to emerge and become clearly visible (Foucault, 2012).

The consensus among the western Anglo male scholars I have referenced herein is that language *is* power and *has* power. Without language, the agency of the rational actor in society is minimal, primal. Without language civilizations, industries, or economies of scale cannot develop. A world without language would be a brutish, Hobbesianesque world, full of thuggish, primal actors pursuing resources for their basic survival needs, using violence as the main form of expression. Clearly, this is not man's fate. The world is relatively civilized, and at times it even produces art. We see various versions of civilization; each of which allow for human expressions that are unique to their own particular requirements of language, corroborating, again, that *language is capital*.

To conclude, in my own words, language is the grand schema within which and from which we perceive and function in the world. Language provides us the symbolic reference points we need to process and intuit reality to function successfully in civil society. Returning to the opening quote in this chapter, from Wittgenstein, my discussion throughout the chapter thus far was intended to reaffirm that language is capital, in that it provides the capital necessary to thrive in a world without limits. In addition, to successfully and fully engage the logic of a society and to access and draw capital from its culture, requires, primarily, a highly advanced and authentic proficiency with the language of the society.

Finally, the concept of language as both the chicken and the egg, within itself (Foucault), is something akin to the riddle of Aristotle's prime mover, which I discuss further in the next section, in that language causes the first movement of all other mechanisms in the actor's

universe, his/her mind. Within every breath and moment of being, language is the primary cause (the unmoved mover or first uncaused cause) or "mover" of all thought and being. As is implicit in the name, the "unmoved mover" moves other things, but is not itself moved by any prior action (Shields, 2016). The actor's language, similarly, produces "all reality" as a reference of language that is itself unmoved by prior action, or mental activity in this case. Language is the root, therefore, and first mover of every known human construct. Language provides for all mental formations ever known or recorded, including rational thought, identity, behavior, culture, society, social contracts. Language allows for conceptual as well as tangible productions (power and capital)— all within a universe that includes multiple and contemporaneous fluctuations within the environment, which can only be made sense of via an ever evolving and expanding database of language. Carrying this line of reasoning to its end, even God, according to Aristotle and the prime mover principle, may only be represented to a human actor as a function of language (Hanley, 2000).

### **Language as the Prime Mover of All Things**

Aristotle wrote of three most favored lives. He categorized them as gratification, political activity, and study. The reader may note that each of Aristotle's most favored lives is rooted in language. According to Aristotle,

“There are roughly three most favored lives—the lives of gratification, of political activity, and third, of study. The many, the most vulgar, would seem to conceive the good and happiness as pleasure. Here they appear completely slavish, since the life they decide on is a life for grazing animals; and yet they have some argument in their defense. The cultivated people, those active, conceive the good as honor. This, however, appears to be too superficial to be what we are seeking, since it seems to depend more on those who

honor than on the one honored, whereas we intuitively believe that the good is something of our own and hard to take from us. The third life is the life of study” (Morgan, 2011).

Aristotle’s argument, in this instance, is that the *most* favored life, i.e. the one of the three favored lives that shines brightest among the others, is the life of study. In its purest form, study shapes and determines the advancement of one’s personal essence and, collectively, the body of human knowledge. The production of knowledge, therefore, requires study, which is predicated upon having access to the capital and utility within and from language. This assertion is a companion argument, in contribution to the discussion, to that of language as being akin to Aristotle’s prime mover (or unmoved mover), in that language is what launches the “all” for every human. The prime mover for Aristotle was the primary cause or "mover" of all the motion in the universe (Olszewsky, 1995). Similarly, it may be reasoned that language is the prime mover *within* each individual, the source of all human means, including all agency, logic, power, and order, power and influence—they are each a function of language as the prime mover for all other expression in every human being. Thus, Aristotle’s concept of the active intellect as a capacity of the human soul, while debated to this day (Shields, 2016), is itself expressed from language! There is irony, therefore, that language, as an internal prime mover, is required to conceptualize an external, cosmic unmoved mover. Word.

Tying Aristotle and my explication back to the central topic of this paper, a key point to bring home comes with the following question. What happens to a rational actor’s ability to study, learn, prosper and even potentially contribute to a society’s body of knowledge when the actor is handicapped by language—not by intellect, not by operant functions, not by a desire to pursue a favored life— but simply by the impediments that are introduced naturally when the

actor transfers from one society to another and has to learn a new language? This is the plight of English Learners in Texas public schools.

When their parents transfer them into U.S. society, ELs experience status and power differentials from the get-go. For the most part, the handicap for ELs is not the new environment, setting, or having access to quality schools. The handicap is lacking English language proficiency. ELs enter the United States with both a heritage language and a heritage cultural background that mirrors their language. Therefore, the pursuit of Aristotle's most favored life, as described in this study, is a major challenge when the learner must rapidly acquire English proficiency as well as content knowledge—and if the newcomer is of high school age, they have only a handful of years to make it all happen. If not, they wash out or drop out, regardless of SB 149.

### **The Plight of English Learners**

#### **Perspective: A Demographic Portrait**

According to the U.S. Census Bureau, as of 2015 over 350 languages are spoken in the U.S. Remarkably, nearly half of the languages spoken in the United States are indigenous languages: the United States Census Bureau has identified 150 different Native North American languages, including Yupik, Dakota, Apache, Keres, and Cherokee. The vast majority of American households, however, are English only. While about 60 million people speak languages other than English (LOTE), over 230 million people who are over 5 years of age speak English only (U.S. Census Bureau, 2016). Rural areas tend to be English only and urban areas more linguistically diverse—e.g. 38 percent of the New York City metro area population age 5 and over speak a language other than English at home (U.S. Census Bureau, 2015), which is a very high percentage when compared the percentage in say, Keokuk, Iowa.

Historically in the U.S., limited data had been collected on languages spoken. According to the Census Bureau,

“In the past, various questions on language use were asked in the censuses from 1890 to 1970. The three questions below were asked in the census in 1980, 1990, and 2000 and are the same questions asked in today’s American Community Survey

a. Does this person speak a language other than English at home?

Yes

No

b. What is this language? (For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

Very well

Well

Not well

Not at all

One of the main purposes of the Census Bureau in collecting this information on languages is for Voting Rights determination. Information about languages spoken at home and English-speaking ability are used to determine bilingual election requirements under the Voting Rights Act (U.S. Census Bureau, 2016). For decades, the response rates were poor on the Census Bureau’s surveys. Recipients deemed the forms too long, too cumbersome and the questions too intrusive to answer, resulting in incomplete data on home languages. But that changed with the full implementation of the American Communities Survey. While many of the questions did not change, the newly designed survey employed new sampling and estimation methods, and the data collected from 2009 to 2013 painted a much fuller portrait of the linguistic diversity in the

United States. In 2011, the data were compiled into a paper presented by U.S. Census Bureau statisticians during the Federal Forecaster's Conference, announcing language-related projections for the U.S. in 2010-2020,

The United States will continue to be a linguistically diverse nation in the coming years. The projections we produced show that the use of languages other than English (LOTE) is projected to increase over the next ten years, though English is expected to continue to be the only language spoken by a substantial majority of all U.S. residents 5 years and older. The population speaking Spanish, as well as the populations speaking Portuguese, Russian, Hindi, Chinese, Vietnamese, Tagalog, and Arabic are projected to increase. Spanish is projected to remain the most commonly spoken non-English language. (Shin & Ortman, 2011)

As indicated previously, indigenous languages are roughly 43% of the languages spoken other than English in the country. Speakers of indigenous languages thrived in North America long before the English language arrived. The literature indicate the first English Learners in the United States are traced back to when the earliest colonies were settled and English was introduced to indigenous populations in the 1600s (Crawford, 2004). Since then the number of languages spoken in North America has risen and fallen, "reaching its lowest level in the mid-20th century. But [language diversity] has existed in every era, since long before the United States constituted itself as a nation" (Crawford, 2004).

In summary of the demographic portrait for ELs, current data indicate over 60 million individuals speak a language other than English in the U.S. (U.S. Census Bureau, 2013). These ELs represent a large segment of the American population, and the number of ELs in public schools is rising and will continue to rise. Meeting the cognitive, affective, and linguistic needs of English learners so that they graduate on time and within their cohort will continue to be a challenge for any school in every city and state. In particular, states that link graduation to a demonstration of English proficiency via high stakes exams will likely face the greatest challenges when it comes to ELs graduating on time (Young et al., 2008; Lazarín, 2006).

## **Overview: Policy and Law**

With a demographic portrait intact from the previous section, the next step in our discussion of the plight of ELs requires a change of the lens on our microscope, to that of policy and law. For this paper I define policy as the concrete expression of a goal concerning how a problem is to be addressed. The goal, for the purpose of the definition, is the broad primary and intended outcome of the policy. Underpinning all policy is a system of strategies, objectives, and tactics. To understand the policy process, consider these elements in series: Policy → Goal → Strategy → Objective → Tactics, where strategies are the approaches taken to achieve the goal; objectives are measurable steps taken to achieve each strategy; and tactics are tools used in pursuing the objectives associated with the strategies. This system-view is supported by the work of Dean G. Kilpatrick of the Medical University of South Carolina, who characterized public policy similarly,

In any society, governmental entities enact laws, make policies, and allocate resources. This is true at all levels. Public policy can be generally defined as a system of laws, regulatory measures, courses of action, and funding priorities concerning a given topic promulgated by a governmental entity or its representatives (Kilpatrick, 2000).

Policy often has a number of functions. For example, policy establishes rights or violation of rights, prescribes behaviors and penalties, and/or determines eligibility criteria, funding, and resource allocations (Sabatier & Mazmanian, 1981). Consequently, law becomes integral to public policy. There is a distinction to be drawn, however, between definitions of public policy that regard policy as intent by law, as in what a government or entity intends to accomplish (read the preamble of any major legislation and you will find intent), and the other class of definitions which regard policy as result, where policy is experienced by the intended beneficiaries or the target of regulation or law, including the behaviors or outcomes for the beneficiaries. Whether the former or the latter, policy is more than a preamble to a statute. Policy

is statutory, yes, but policy carries with it many tangles, formed from numerous filaments of human experiences that manifest under the policy, comprising all the things that accompany and come after the policy, once the policy is in place (Lynn, 2013).

Policy is typically expressed by funding, laws, and/or by regulation, all directed at an objective, topic, or goal. Essentially, policy is the means to an end. The agents of public policy include those from public, private, and governmental sectors, linking and partnering in diverse combinations and intentionally useful ways (Weible, Heikkila, deLeon, & Sabatier, 2012). In the policy cycle, issues are framed as problems with possible solutions. Beliefs are formed about the nature of the problems and the nature of potential solutions. Advocacy coalitions evolve naturally from shared beliefs about a policy issue. These coalitions become active, creating interest groups to introduce and position strategically important actors in the policy making process. In sum, fully defining the policy process requires awareness of the goals and perceptions of “hundreds of actors throughout the country involving possibly very technical scientific and legal issues over periods of a decade or more while most of those actors are actively seeking to propagate their specific ‘spin’ on events” (Sabatier, 2009). For policy to exist in the manner just described among the, “hundreds of actors,” it must be implemented first. Policy implementation is the product of what has happened in the flow of the earlier stages of the policy process (prior to implementation). Regardless of the earlier stages, the “content of policy, and its impact on those affected, may be substantially modified, elaborated or even negated during the implementation stage [where] policy is being made as it is being administered and administered as it is being made” (Hill & Hupe, 2014).

Through the implementation process there is a flow with advocacy groups and coalitions, where policy study and learning occur, norms become established, and new ideas and knowledge

are brought to bear (Hill & Hupe, 2014). Leaders then put themselves forward to enrich the process, offering new ways to see problems and announcing new opportunities— e.g. Alexandria Ocasio-Cortes in 2018. Key actors in the process open windows of opportunity and contribute to the finding of solutions, where finding solutions is the heuristic of the policy process and public administration (Sabatier & Mazmanian, 1981). The check and balance within the policy process is the will of the electorate, such that “policy preferences of a governing coalition change when election fortunes dictate, which in turn brings about a new set of policies [but] shifts in attention must precede changes in policy action, whether these shifts are caused by changes in electoral fortunes or other factors” (Baumgartner et al., 2011).

With managing the political stage and the sentiments of the electorate, “the question of whether public administration is an art or science, driven by values or facts, will never be satisfactorily answered, because of a lack of consensus among the community of scholars within the field” (Ricucci, 2010). Whether it is art or science, good public administration is “essential to good democracy because it brings policy ideas to life. Even more, fundamentally, public administration helps define what policy ideas really mean” (Kettl & Fesler, 2005). Effective administration, therefore, cannot occur in a state of isolation. Administration and public management “increasingly rely on a variety of indirect relationships with dispersed and diverse entities” (Lynn, 2006), with the point being that an administration that is attuned and accountable to the electorate is critical to implement effective policy.

Taking into account what I have described thus far in this overview of policy (an overview of law follows next) if one were to synthesize these ideas on policy, implementation, and administration into a temporal flow of process, and twist the microscope lenses again over to the “EL lens,” it is remarkable to see how far ELs have journeyed under policy since the 1970s.

Synthesized to this view and from this perspective we look for some manner of scientifically useful observation. To wit, has policy regarding ELs come far enough? Does policy for ELs factor sufficiently for obvious differentials in language proficiency (American Youth Policy Forum, 2009)? In part, answering this question is a goal of this paper. From the beginning I have pledged to examine EL performance at a selected school and question whether the condition with graduation for ELs in Texas has been improved by SB 149.

At any point in raising questions about policy, or policy involving language, specifically, it is interesting to note that throughout its *early* history the U.S. “tolerated and sustained instances of official multilingualism at certain historical periods because it made good, efficacious sense to do so” (Del Valle, 2003b). That changed in the 1920s, when English-only became dominant in public schools. This continued more than four decades until activists for social justice in the 1960s punctuated the status quo with new legislation on behalf of English Learners. The modern legislation that codified bilingual programs coast to coast was the Equal Educational Opportunities Act of 1974 (Commission on Civil Rights, 1974 #94).

The intent and legal expectations of this legislation carry forward to this day. Public schools, now by habit, work to meet students’ language acquisition needs. When students are identified as “limited English proficient,” another mechanism, Title III of the Elementary and Secondary Education Act (2001), requires the school district to provide appropriate programs to help the student develop the English skills necessary for learning and for performing rigorous academic work in English. Similarly, Title VI of the Civil Rights Act (1964) affirms that districts must “help EL students overcome language barriers” and “ensure that they can participate meaningfully in the districts’ educational programs” (Vialpando, Yedlin, Linse, Harrington, & Cannon, 2005).

In Texas, ELs are served in either bilingual education programs (elementary and middle school) or by English as a second language (ESL) programs (high school). The goal of bilingual programs is to develop literacy and academic skills in *both* the student’s heritage language and English—and this is not the case in ESL programs in Texas’ high schools (Bartlett & Garcia). ESL programs integrate English-language instruction with academic instruction delivered in English. In general the mission of ESL programs is to provide effective and age-appropriate English language instruction (listening, speaking, reading, and writing), to support EL achievement in all content areas (Texas Education Agency, 2017b). ESL makes no provision for or inclusion of the student’s heritage language. By statute a “program of instruction in English as a second language established by a school district shall be a program of intensive instruction in English from teachers trained in recognizing and dealing with language differences” (Texas Education Code, Chapter 29).

The policies I have just described did not come easily. Unlike many other policy arenas, where creating policy involved good faith efforts by competing interests working in their own favor, the evolution of EL policy was a much different affair. The process of including ELs in educational policy and practice was litigious and politically competitive, where core values, ideas and interests were truly at stake. The policy shifts that finally brought real change and real-life assurances for ELs were acquired over decades, hard-fought decades, of litigation while being subjugated under the old policies, policies that could neither stand nor be defended, *by anybody*, today. Victory was not earned, however, within the typical policy cycle of educating, lobbying, and forming public coalitions within the electorate, nor by exerting political pressure, nor by the will of the people to *do the right thing*. Rather, desired policy for ELs was won, and

rights and protections were finally acknowledged and granted, from a series of wholesale victories, not at the ballot box, but in *state and federal court*.

To conclude this section on policy, I harken back to when public schooling became similar in manner to what we know today. It began in the 1890s during the progressive era in education, and the scope of schooling during this time expanded considerably. Compulsory attendance became law and increased the number of students, requiring more schools, and they produced more high school graduates, both in cities and rural areas alike, to the point where by the 1940s, nearly half of all students graduated from high school (Herbst, 1996). Public school enrollment and the number of graduates also increased steadily each year through the late 1950s and early 60s. In terms of policy during this time, remedial and support services for English Learners were not available. The most common remedy was retention, holding ELs back at the same grade level until they learned “enough” English to advance. This was supported by a federal policy of immersion for language minority students. In fact, by the 1890s immersion completely supplanted multilingualism as the law of the land, as expected practice if not by specific statute, and remained the dominant methodology for more than half a century, up through the nation’s post-industrial history.

The first policy change to favor ELs occurred in 1963 in Dade County, FL. The community established a two-way bilingual program for Cuban refugee children, and the results were impressive enough that the two-way program inspired the implementation of similar programs in other public schools. More importantly among advocates for ELs, there was a mind shift, a paradigm shift during this time. Rather than view ELs as an afterthought, advocates for ELs were learning, “that when Hispanic parents and educators are in control of the education of their own children, they question the educational process itself, and not the role of the minority

language or the minority child in the majority school” (García & Otheguy, 1987). The paradigm shift from the early 1960s became a social movement, continuing across the country, resulting, only one year later, in sweeping federal legislation that brought significant changes and new rights for ELs and many, many others. It bears repeating that the rights afforded ELs today were not granted through the wisdom and will of the American people. These rights were granted in spite of the will of the American people. This is an embarrassing, historical fact that will be affirmed throughout the next several pages as I cover the key court cases involving ELs.

**1964 Civil Rights Act: Title VI.** The landmark Civil Rights Act Of 1964 introduced welcomed civil rights reforms for ELs and other minorities, passing Congress by a Senate vote of 73–27 and House vote of 289–126. President John F. Kennedy called for the legislation in 1963, and it was signed into law by President Johnson on July 2, 1964. The act included eleven major features, or Titles. Specifically, Title VI, in the interest of ELs, outlawed discrimination on the basis of race, color, and national origin in the operation of all federally assisted programs. (U.S. Department of Justice, 2016).

Under Title VI, school districts were required to take affirmative steps to ensure that English Learner students could participate meaningfully and equally in educational programs and services. For example, federal stipulations required school districts to: 1) identify EL students in a timely, valid, and reliable manner; 2) offer all EL students an educationally sound language assistance program; 3) provide qualified staff and sufficient resources to instruct EL students; 4) ensure EL students had equitable access to school programs, activities, and services; 5) avoid unnecessary segregation of EL students from other students; 6) monitor the progress of EL students in learning English and doing grade-level classwork; 7) remedy any academic deficits EL students incur while in a language assistance program; 8) move EL students out of language

assistance programs when they became proficient in English and monitor them to ensure they were not prematurely exited; and 9) evaluate the effectiveness of EL programs (Commission on Civil Rights, 1964). Most noteworthy for ELs, the Civil Rights Act Of 1964 ended segregation in public schools.

**1968 The Bilingual Education Act.** Title VII of the Elementary and Secondary Education Act of 1968 established federal policy on bilingual education for economically disadvantaged language minority students. Title VII allocated funds for innovative programs and was the first federal legislation to address the unique educational needs of students with limited English-speaking ability (later called “limited English proficient or LEP”). The title also set the stage for additional legislation regarding equality of educational opportunity for language minorities (Orr, 2010).

**The case of Lau v. Nichols (1974).** Lau v. Nichols is generally considered to be “the most consequential U.S. Supreme Court decision regarding language” (Hunt & Carper, 2010). In the early 1970s public schools in California started to integrate minority students with white students. Students of Chinese ancestry, many of whom did not speak English, were allowed to attend public schools. At the time, however, only a fraction of the Chinese ELs received supplemental services for learning academic content and learning English. By April 1973, there were 3,457 Chinese students in the school system who spoke little or no English, and of them only 1,707 of the 3,457 Chinese students needing special English instruction were receiving it (Hakuta, 2000). Representatives of the Chinese students brought suit against school officials in the San Francisco Unified School District and alleged that the students were not provided with equal educational opportunities in violation of their Fourteenth Amendment rights.

The lower courts, meanwhile, had already ruled against the same students. The expressed logic of the lower courts was that *life is not fair*; some students have advantages, some have disadvantages, and public schools are neither the brokers of privilege nor accountable for the lack thereof. Thus, the lower courts concluded the school district was *not* required to compensate educationally for the inherent disadvantages that Chinese immigrant children had from not speaking English (Punches, 1985).

In January 1974, the U.S. Supreme Court ruled upon the case. The majority of the justices focused on the problem of reconciling two provisions in California law: 1) English was the official language of all California schools and all students in California schools were required to master English; and 2) students between the ages 6 – 16 were required to attend school. The problem for the majority on the Supreme Court was how to reconcile a) that students who do not speak English are required to attend schools that function in English only, with b) students are required to master English without support. In the court opinion, the state-imposed standards “did not provide for equality of treatment simply because all students were provided with equal facilities, books, teachers, and curriculum” (Moran, 2005). Under this reasoning, the Supreme Court ruled against the lower courts.

The major change from the ruling in the Lau case was that public schools receiving federal funds must now provide services to address the needs of limited English proficient students. The ruling also gave the Office of Civil Rights authority to make regulations in this regard. In doing so, the Court relied on several key principles,

First, Congress had the power to prohibit behavior that does not necessarily amount to a constitutional violation . . . second, Congress exercised its power when enacting Title VI to reach not just intentional discrimination but also acts with an adverse effect . . . third, the scope of civil rights protection was legitimate and authoritative . . . and finally, private individuals like Chinese-speaking students in San Francisco could sue. (Moran, 2005)

**1974 Serna v. Portales.** In the small, eastern New Mexican town of Portales there were ongoing allegations of racial prejudice, inequality and discrimination. Antagonistic relations between Mexican-American and Anglo community members lingered unsettled and festered throughout the 1950s, 1960s, and carried into the 1970s (Martinez, 1979). In July of 1971, a complaint for injunctive and declaratory relief was filed against the Portales Municipal Schools, and the case eventually advanced to the 10<sup>th</sup> Circuit Court of Appeals, which ruled that Spanish surnamed student achievement levels in Portales were below those of their Anglo counterparts. The court ordered Portales Municipal Schools to implement a bilingual/bicultural curriculum, revise procedures for assessing achievement, and hire bilingual school personnel. As this was a federal court ruling, the result of Serna was that *all* U.S. schools with a "substantial group" of limited English students were now required to offer bilingual education and services.

**The case of Castaneda v. Pickard (1981).** In 1978, Roy Castaneda filed against the Raymondville Independent School District (RISD) of Raymondville, Texas. Castaneda was fed up that based on ethnicity, RISD was discriminating against Mexican-American children and their parents. Castaneda alleged that classrooms were being segregated unjustly, justified by using a "grouping system" that was actually based on racially and ethnically discriminatory criteria.

From the *Lau vs. Nichols*, school districts were required to establish bilingual education. But lacking from the Lau decision was the requirement of a method or system to evaluate the adequacy and effectiveness of the school's approach. Castaneda contended, 4 years after Lau, and in spite of Lau, the program RISD offered was neither adequate nor effective and resulted in district-sponsored segregation. RISD answered that it was working in its own interest to separate students; the separation was neither discriminatory nor did the separation create an educational

setting that was inadequate or ineffective. But the Fifth Circuit of the United States Court of Appeals disagreed emphatically. The court ruled as follows,

Because an effective language remediation program is essential to the education of many students in Raymondville, we think it imperative that the district court, as soon as possible following the issuance of our mandate, conduct a hearing to identify the precise causes of the language deficiencies affecting some of the RISD teachers and to establish a time table for the parties to follow in devising and implementing a program to alleviate these deficiencies. The district court should also assure that RISD takes whatever steps are necessary to acquire validated Spanish language achievement tests for administration to students in the bilingual program at an appropriate time during the 1981-82 academic year. ("Castaneda v. Pickard," 1981)

What came from the Court's decision became known as the Castañeda standard, which mandated thereafter for all U.S. public schools that programs for language-minority students must include: 1) *theory* based on a sound educational theory; 2) *practice* implemented effectively with sufficient resources and personnel; and 3) *results* evaluated to determine whether they are effective in helping students overcome language barriers (Del Valle, 2003a).

**SB 477 (1981).** SB 477 is a senate bill in Texas that established legal requirements and procedures related to bilingual education and English as a second language and other special language programs in the state's public schools (Bartlett & Garcia, 2011). It stemmed from a lawsuit brought by the Mexican American Legal Defense and Educational Fund (MALDEF) against the state of Texas, where MALDEF contested Texas' efforts to "offset the effects of past discrimination against Mexican Americans by merely making [bilingual] programs voluntary" (Bartlett & Garcia, 2011).

The political climate in Texas was hyper-charged in the early 1980s, and as Guadalupe San Miguel explained in his analysis of SB 477, "as long as Mexican Americans were denied their rightful place in American institutional life, they would continue to pursue their campaign for educational equality" (Miguel, 1987). As a result of the litigation, the state revised its

mandate and *required* school systems to offer bilingual education programs in elementary grades and English as a second language programs in high school” (Cortez & Johnson, 2013).

SB 477 also established the Language Proficiency Assessment Committee (LPAC). The committee “prescribed uniform procedures for student identification and placement, established exit criteria for students to be transitioned out of the mandated program, and slightly increased state funding based on numbers of LEP students served” (Cortez & Johnson, 2013). The nuts and bolts of the required provisions of SB 477 are detailed in current Texas Education Code (TEC), Chapter 29,

(2) If the program is a special language program, the program must be classified under the Public Education Information Management System (PEIMS) report as:

(A) English as a second language/content-based: an English program that serves students identified as students of limited English proficiency in English only by providing a full-time teacher certified under Section 29.061(c) to provide supplementary instruction for all content area instruction; or

(B) English as a second language/pull-out: an English program that serves students identified as students of limited English proficiency in English only by providing a part-time teacher certified under Section 29.061(c) to provide English language arts instruction exclusively, while the student remains in a mainstream instructional arrangement in the remaining content areas.” (Texas Education Code, Chapter 29, 2016)

**1982 Plyler v. Doe.** In 1975, the Texas legislature ruled it would *not* pay for the public education of children who were residing *illegally* in the state, and the legislature authorized local school districts to refuse enrollment to such students. This resulted in a constitutional challenge under the Equal Protection Clause. The argument in court against the Texas legislature’s ruling was to contest the imposed deprivation of educational opportunity for children residing illegally in the U.S. as a deliberate disenfranchisement of students without authorized immigration status (Radoff, 2011). The U.S. Supreme Court, by a 5-4 majority, held that it was unconstitutional for school districts to deny educational benefits to children because of their legal status. Writing for the majority, liberal Justice William J. Brennan insisted that the state had failed to demonstrate

that the exclusion was a rational means for furthering a “substantial state interest” (Lewis, 2010), and added that if allowed, restrictions similar to Texas’ would result in the existence of a “shadow population” of illegal migrants in the United States, numbering in the millions, creating “a specter of a permanent caste of undocumented aliens, encouraged by some to remain here as a source of cheap labor, but nevertheless, denied the benefits that our society makes available to citizens” (Soltero, 2006). The final determination of the court was that under the Fourteenth Amendment of the U.S. Constitution, the state of Texas did not have the right to deny a free public education to undocumented immigrant children.

**No Child Left Behind (NCLB):** NCLB was neither driven by nor written for the expressed interest of ELs. It was broad legislation applying to all students. NCLB was a product from the 2001 reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965, which did include a provision for ELs. The original Act, ESEA, mandated educational equity for all K-12 students, including English Learners (ELs), described in Title III. Regarding ELs, specifically, the academic achievement targets in NCLB specified the percent of ELs that must be proficient or above in English-language arts and mathematics (Hetzl, 2007 #2). Also, NCLB’s annual measurable achievement objectives (AMAO) calculated the percentage of ELs making annual progress. Finally, NCLB appropriated funds to states to improve the education of limited English proficient students by assisting children to learn English and meet challenging state academic content and achievement standards (Evans & Hornberger, 2005).

In conclusion and in summary of the court cases above, they grew from the roots of the Civil Rights movement, which began during the progressive era in the 19th century and peaked in the 1950s and 1960s (Davis, 2014). ELs via their advocates pursued a policy agenda through legal means, negotiations, petitions, and they won numerous court cases. The cases, the court

victories, and the resulting legislation described in this section evolved over many decades and succeeded first in *court* only because of an organized, popular movement within a determined political minority. The ongoing result in present times is equal educational access and opportunities for ELs and also many of the basic privileges and rights of U.S. citizenship. Fast forward to 2015 in Texas, and we have a modern piece of legislation that punctuated the status quo and provided, possibly, another victory for ELs, be it intentional or otherwise— SB 149.

### **Punctuating the Equilibrium: SB 149**

In hindsight, SB 149 is a major Texas school reform initiative. If you have heard of high stakes testing in public schools and are familiar with Texas, you know of the long-standing arrangement in Texas going back decades, where the state test is inextricably linked to high school graduation. This *linkage equilibrium*, as I shall call it, was punctuated severely by SB 149, which instantly brought reform to high stakes testing in Texas public schools. It happened fairly recently, in early 2015. With its passage, SB 149 re-formed and re-configured the entire testing regime in Texas. It reduced the number of End of Course Exams (EOCs) required to graduate public high school in Texas from five to any three out of five.

*We'll take any three out of five*, while arguably not the most elegant new arrangement, was the most significant education policy change in Texas public schools in over thirty years. Until SB 149 punctuated the previous equilibrium, there was a non-negotiable and inseparable linkage between passing the state's test and graduating. Resulting from SB 149, testing went from a binary construct (student passes, student graduates; student fails, student does not graduate) to a non-binary system. In fact, SB 149 now allows for *ten* pathways to graduation,

derived by the student meeting standard on any combination of three out of five of the states EOCs, as illustrated here mathematically:

$$C(m,n) = \frac{m!}{(n!)(m-n)!}$$
$$C(5,3) = \frac{5!}{(3!)(5-3)!} = \frac{5*4*3*2*1}{(3*2*1)(2*1)} = \frac{120}{6*2} = \frac{120}{12} = 10$$

Regardless of whether the Texas Legislature had ELs at heart when they passed the legislation, having ten pathways to graduation for a struggling EL student instead of only *one* is a big win. In this sense, SB 149 is *major* reform legislation in the legislation’s influence on ELs, perhaps as significant as SB 477, described in the previous section, which mandated today’s EL programs. Because SB 149 was so revolutionary, transformational and unexpected, the passage of SB 149 is most aptly described as a *punctuated equilibrium event* as characterized by Punctuated Equilibrium Theory (PET).

I tackle Punctuated Equilibrium Theory in detail in the upcoming Theoretical Framework section of this chapter, but the short of it for purposes in this section of the chapter is PET describes periods of stability and incremental drift, punctuated suddenly by large-scale policy changes. With the case of SB 149 the equilibrium period of state testing, in keeping with the theory, was “punctuated by a very brief period of intense and pervasive change, culminating in the formulation of new missions and the initiation of new equilibrium periods” (Romanelli & Tushman, 1994). We have that with the new 3 out of 5 on the state tests. Also fitting perfectly with punctuated equilibrium theory, SB 149 was the result of “intense and pervasive change” as demonstrated by the *unheard of in Texas* timeline of the bill’s passage. SB 149 roared from introduction to law the land in less than six months!

## Genesis of SB 149

Senate Bill 149 began its journey into law when Senator Kel Seliger, a west Texas native and former mayor of Amarillo, of District 31, filed SB 149 for consideration in the Senate of the Texas Legislature on November 10, 2014. As the bill's sponsor, Mr. Seliger was highlighted in a press release that same day on the Texas Senate's web site,

Absent legislative action, some *48,000 students* [emphasis mine] will not graduate from high school this year simply because they cannot pass a high stakes test. In most cases, these students have passed their coursework and only the passage of an exam is holding them back. Without a high school diploma, a student cannot attend college - even to obtain professional certification. A high school diploma is required to join the military and to qualify for many minimum wage jobs. Everyone can agree that students should meet the minimum requirements of the curriculum; however, once they have successfully completed all of their courses, should their futures depend on high-stakes tests? (The Texas Senate, November 2014)

Mr. Seliger, 65, has served in the Texas Senate since 2004, and in 2011 he earned the Texas Municipal League's Legislator of the Year award. Mr. Seliger's website describes him as a leader on public education policy issues who serves on several committees: the Senate Finance, Higher Education, Open Government, and Natural Resources ("Republican Kel Seliger State Senator," 2017). While most sources, including The Texas Tribune (M. Smith, March 2015), put the number at *28,000* of students at risk of not graduating in the spring of 2015, not the 48,000 mentioned in the press release, either way there is consensus on Mr. Selig's signature point as reported in Education News that "we are refining our accountability measure, and I think it gets better all the time. At the same time, we don't want young people to be retained in school who really ought to graduate" (Decarr, February 2015). From the time of Decarr's article, the first independent public reporting on SB 149, it would take only *three more months* for SB 149 to complete its rotation through the policy process and become law.

## **The Policy Process in Texas**

According to the Texas Municipal Court Education Center, the policy process, from bill to law, begins when a representative or senator writes a bill, often with legal assistance from the Texas Legislative Council. Once a bill has been written, it is introduced by a member of the House or Senate in the member's own chamber. After a bill has been introduced, a short description of the bill, called a caption, is read aloud while the chamber is in session so that all of the members are aware of the bill and its subject. This is called the first reading, and it is the point in the process where the presiding officer assigns the bill to a committee (Texas Municipal Courts Education Center, 2017). SB 149 had its first reading and was assigned to the Texas Senate's education committee in January 2015.

Public testimony is almost always solicited on bills, allowing citizens the opportunity to present arguments on different sides of an issue center (Texas Municipal Courts Education Center, 2017). The first public hearings for SB 149 commenced in late February and early March (Texas Legislature, 2015), and the bill was added to the Senate's intent calendar on March 16, 2015. After considering a bill, a committee may issue a report on the bill or may choose to take no action. The committee report, expressing the committee's recommendations regarding action on a bill, includes a record of the committee's vote on the report, the text of the bill as reported by the committee, a detailed bill analysis, and a fiscal note or other impact statement, as necessary (Texas Municipal Courts Education Center, 2017). The record vote for SB 149 occurred on March 17, 2015, after which a copy was distributed to every member of the Senate.

When a bill comes up for consideration by the full House or Senate, it receives its second reading. The bill is read, again by caption only, and then debated by the full membership of the chamber. Any member may offer an amendment, but to be adopted it must be approved by a

majority of the members present and voting (Texas House of Representatives, 2017). SB 149's second reading occurred on the 17<sup>th</sup> of March, the same day as the first reading. In addition, four amendments were offered after the second reading on March 17, 2015.

The members of the chamber then vote on whether to pass the bill. For SB 149 this also occurred on the 17<sup>th</sup>. After the chamber vote, next, the full body, on third reading and final passage, considers the bill. A bill may be amended on third reading, but amendments at this stage require a two-thirds majority for adoption. In the case of SB 149's third reading, no amendment was offered.

Although the Texas Constitution requires a bill to be read on three separate days in each House before it can have the force of law, this constitutional rule may be suspended by a four-fifths vote of the House in which the bill is pending (Texas Municipal Courts Education Center, 2017). The Senate routinely suspends this constitutional provision in order to give a bill an immediate third reading after its second reading consideration. For SB 149, the Senate voted to suspend the three-day rule, also on March 17, 2015,

Senator Seliger moved that Senate Rule 7.18 and the Constitutional Rule requiring bills to be read on three several days be suspended and that CSSB 149 be placed on its third reading and final passage. The motion prevailed by the following vote: Yeas 28, Nays 2. (Texas Eighty-Fourth Legislature--Regular Session, 2015)

In either House, a bill may be passed on a voice vote or a record vote. In the Senate, record votes are taken by calling the roll of the members. If a bill receives a majority vote on third reading, it is considered passed. SB 149 had the record vote on March 17, 2015, was read a third time, and passed by the same margin as the previous roll call: Yeas 28, Nays 2 (Texas Eighty-Fourth Legislature--Regular Session, 2015).

When a bill is passed in the House where it originated (either chamber), the bill is engrossed, which occurred the next day for SB 149, March 18, 2015. By being engrossed, a new

copy of the bill, which incorporates all corrections and amendments, is prepared and sent to the opposite chamber for consideration. In the opposite chamber, the bill follows basically the same steps it followed in the first House. When the bill is passed in the opposite chamber, it is returned to the originating chamber with any amendments that have been adopted attached to the bill (Texas House of Representatives, 2017). Accordingly, each of the steps described above for the Senate repeated in the Texas House, in the same order, lasting from first reading in the House and assignment to the House Education Committee April 2, 2015, to public hearings on the 7<sup>th</sup>, second reading and amendments offered on the 21<sup>st</sup>, third reading, amendments and record vote on the 22<sup>nd</sup>, and house passage on the April 23, 2015 (Texas Legislature, 2015).

If a bill is returned to the originating chamber with amendments, as SB 149 was, the originating chamber can either agree to the amendments or request a conference committee to work out differences between the House version and the Senate version (Texas House of Representatives, 2017). In the case of SB 149, the Senate concurred with the House amendments on April 29, 2015. The bill was then put in final form and signed by the presiding officers of the House and Senate and sent to Governor Abbott for signature on April 30, 2015.

Upon receiving a bill, the Governor has 10 days in which to sign the bill, veto it, or allow it to become law without a signature. If the Governor vetoes the bill and the legislature is still in session, the bill is returned to the House in which it originated with an explanation of the Governor's objections. A two-thirds majority in each House is required to override the veto. If the Governor neither vetoes nor signs the bill within 10 days, the bill becomes a law. If a bill is sent to the Governor within 10 days of final adjournment, the Governor has until 20 days after final adjournment to sign the bill, veto it, or allow it to become law without a signature (Texas House of Representatives, 2017). Governor Greg Abbott held SB 149 less than two weeks and

signed the legislation into law on May 11, 2015, effective immediately. As a new Texas governor, it was the first bill he signed (Rangel, 2015).

It is no surprise that on the same day SB 149 became law, the Texas Education Agency posted an alert online. The alert stated, “There are immediate and significant changes to the state’s assessment graduation requirements, first effective with this year’s graduating 12th grade class. Emergency commissioner rules to amend the assessment graduation requirements have been filed with the Texas Register and are effective immediately” (Texas Education Agency, May 2015a). The Class of 2015 was less than three weeks away from graduation, and the rules had just changed dramatically.

### **Implementation of SB 149**

On or about June 3<sup>rd</sup>, 2015, was the graduation date that most Texas’ public high schools had set, which meant these schools had approximately 16 school days to process their qualifying students under SB 149. For the number of students who would not graduate without the law, the reader may recall that estimates ranged from between 28,000 to 48,000 students. Bear in mind SB 149 requires a series of meetings and numerous steps from both the campus Individual Graduation Committee (IGC) and of each student, and suddenly there were the tens of thousands of them in the state that had to go before committee. The sense of urgency was palpable in administration offices across Texas; there was “very little time to coordinate a swarm of rapidly moving parts” (Hope, 2015).

To implement the new policy, each school would begin by screening their 2015 cohort data for seniors who met the following: completed all course requirements (the foundation high school program identified by the State Board of Education or as otherwise provided by the transition plan adopted by the commissioner in TAC, §74.1021); had failed one or two of the

EOCs (i.e. from English 1, English 2, Algebra, Biology, and/or U.S. History); had attempted each failed EOC at least twice; met requirements established by the IGC (e.g. discipline and attendance); and finally, the vote from the IGC had to be unanimous in favor of the student [TEC, §28.0258(i)] (Texas Education Code, Chapter 101-28.0258, 2015).

After determining the students who qualified, each student case would be reviewed by the campus IGC, a campus committee comprised of the principal or his/her designee; a teacher of the course for which the student did not pass the EOC assessment; the department chair or lead teacher supervising the teacher of the course; the student's parent or guardian or a designated advocate; and the student, if the student is at least 18 years old or is an emancipated minor [TEC, §28.0258(b)]. For the target school for this study, the student's counselor and registrar were also included on the committee, which was a local decision by HSX.

For each specific content area for which the student was applying the legislation to graduate, the IGC was required to recommend additional stipulations, beyond the provisions described above. In short, the committee was required to arrange for (and document) additional remediation. For each EOC assessment on which the student failed to meet standard, the IGC must require the "completion of a project related to the subject area of the course to demonstrate proficiency or; the preparation of a portfolio of work samples in the subject area of the course, including work samples from the course that demonstrate proficiency" [TEC, §28.0258(f)].

Further, when determining whether a student qualified to graduate IGC, the committee must consider the following contributing qualifiers:

- The recommendation of the student's teacher in each course for which the student failed to perform satisfactorily on an EOC assessment;
- The student's grade in each course for which the student failed to perform satisfactorily on an EOC assessment;
- The student's score on each EOC assessment on which the student failed to perform satisfactorily;

- The student’s performance on any additional requirements recommended by the committee;
- The number of hours of remediation that the student has attended, including attendance in a college preparatory course, if applicable, or attendance in and successful completion of a transitional college course in reading or mathematics;
- The student’s school attendance rate;
- The student’s satisfaction of any of the Texas Success Initiative (TSI) college readiness benchmarks prescribed by the Texas Higher Education Coordinating Board;
- The student’s successful completion of a dual credit course in English, mathematics, science, or social studies;
- The student’s successful completion of a high school pre-Advanced Placement (AP), AP, or International Baccalaureate program course in English, mathematics, science, or social studies;
- The student’s rating of advanced high on the most recent high school administration of the Texas English Language Proficiency Assessment System (TELPAS);
- The student’s score of 50 or greater on a College-Level Examination Program (CLEP) examination;
- The student’s score on the ACT, SAT, or Armed Services Vocational Aptitude Battery (ASVAB) test;
- The student’s completion of a sequence of courses under a career and technical education program required to attain an industry-recognized credential or certificate;
- The student’s overall preparedness for postsecondary success; and
- Any other academic information designated for consideration by the board of trustees of the school district or charter. (TEC, §28.0258(h)) (Texas Education Agency, 2017c)

Under ideal circumstance, the logistics of assembling the required participants at a scheduled time, distributing and evaluating the data, considering the list of all contributing qualifiers, making recommendations, and then reconvening at a later date to evaluate the portfolios or special projects— and to accomplish all this within 16 days? It was an implementation challenge. The other significant wrinkle with implementing SB 149 in time for graduation was having to wait for the latest EOC scores. For the seniors that would go before the IGC, their final retake had just occurred, during the first week of May 2015. The state’s report date for those scores had been set for June 5th which was *after* graduation.

This put the IGCs in a fever across the state. To recap the timeline, SB 149 became “effective immediately” on May 11, just *three days* after the May EOC retake was in the hopper

(Texas Education Agency, 2017d). The IGC would need those scores, and yet the official report date was scheduled for after graduation. This made for a tense situation, but the state managed to fast-track the scores. A review of 2015 email at HSX confirmed that EOC scores were in the hands of the IGC by May 18th, a little over 2 weeks before graduation. With this many moving parts tumbling down in May of 2015, I recall a very stressful thirteen days for seniors hoping to graduate, for teachers, all the IGC members, and for administrators trying to implement SB 149 at the last minute. The curious part is SB 149 came with no forewarning; *nobody* in the district saw it coming. Furthermore, not a single news source in the region had caught SB 149 ahead of time while covering the legislature. The local press for HSX picked the story up only after the “effective immediately” announcement. (For additional discussion on this point, see APPENDIX B: Uncommon Punctuation: a Curious Chronology of Media Coverage.)

In conclusion of this section on the bill’s implementation, what is most interesting in hindsight about the timing and implementation of SB 149 is that tens of thousands of students were saved in a nick of time for graduation without the proverbial townspeople. There weren’t any pitchforks and torches, no angry electorate driving the process, and yet SB 149 somehow came into being, seemingly on its own. It sailed through both chambers of the Texas legislature without debate. It was signed in near record time, just 182 days from its introduction, and in May 2015, it became the law of the land, just in time for the Class of 2015.

### **Gaps In The Research**

Yesterday, upon the stair,

I met a man who wasn't there.

He wasn't there again today,

I wish, I wish he'd go away...

– William Mearns Hughes, 1922

I use this quote to introduce the following, essentially a research riddle, that played out as I scanned for gaps in the research with respect to my study: Is an absence of evidence, upon reflection, evidence of an absence? I would suppose it is not when scanning for gaps in research. But the question is a bit of a research riddle, and here the riddle is framed more concretely, by Dr. Philip Sedgwick, a senior lecturer in medical statistics,

The trial participants were a single sample from the population, and it was not obvious how representative they were. Another sample may have given different results. This concept led to the phrase, “Absence of evidence is not evidence of absence.” (Sedgwick, 2011)

I use Sedgwick’s point to make my own. Namely, there is an absence of evidence that anyone else has studied SB 149, let alone SB 149 and ELs. After exhaustive queries, I find no evidence where at any point in time a member of the research community has done so. Nor has another researcher on a similar topic organized a review of literature to unite the mysteries of language with the plight of ELs, including the underpinnings of the apropos machinations of politics and policy, and churned them through the chamber of punctuated equilibrium theory, and from the PET chamber has delivered three key research questions that warrant a full study. I do not believe this has been done before, at least in the manner I have offered in this study.

This is not to suggest, however, that merely because *I* cannot find evidence of predecessors of said research, that by logical extension from this *absence of evidence* there *must be* gaps in the research, in general, in this regard, *somewhere*, which taken together would then make for and affirm, overall, *evidence of absence*, so to speak. If true, with this very study, surprisingly, I would be the *first* to fill the gaps in research in this regard, perhaps even

heroically. I do not suggest that. Nor do I suggest that the review of literature offered in this chapter, in the manner I have provided, mortars *any* gaps at all in the research, upon the stair or not, so to speak. I leave that to the reader.

Furthermore, and somewhat troubling, were I even able to confirm there is an absence of evidence and that what I have undertaken has truly not been researched before, that even my *topic* has not been researched before, and were this premise confirmed with ample evidence of absence of prior research, it still could not be stated that this circumstance would constitute evidence of an absence *in the particular*, meaning absence of research in each particular strand of these various areas that I hold here under study— i.e. the mysteries of the power of language, the plight of ELs, and how SB 149 punctuated a policy equilibrium— and/or that each area herein has not been *carefully* studied before, though perhaps in a separate, perhaps discreet and/or discrepant way of seeing, under a completely different framework, one that might even contradict my own— which might in itself not be a bad thing— but the *in the particular* research was conducted in such isolation in its existence that it cannot be detected. This whole consideration, therefore, is like trying to ascertain all the ingredients in a cookie when all you have is the crumb, and the man on the stair from the Mearns Hughes quote that opened this section holds the jar.

To wit, in the medical journal, *Circulation*, the author Bernardo Nadal-Ginard, made the case in his article “Absence Of Evidence Is Not Evidence Of Absence: Pitfalls Of Cre Knock-Ins In The C-Kit Locus,” that “discrepant and even contradictory results on a given topic are nothing new in science, even when [they] are properly planned and the results are accurately reported” (Nadal-Ginard, Ellison, & Torella, 2014). And with Nadal-Ginard et al, I have come full circle. To be plain, ELs are under-researched, period. The pool of credible studies on how best to teach

ELs is far shallower than it ought be or that it is with other much-debated areas of education (Viadero, 2009). The point is that while previous studies have been conducted on some of the issues described throughout this chapter for ELs, I can confirm that there is a sizeable gap in the research for at least one aspect of my topic in the study, and that is SB 149.

As I hinted at above, on the very specific topic of SB 149, as of January 2019, multiple searches of the UT libraries and databases, including Proquest databases, returned precisely *zero* results for SB 149. In the case of SB 149, these searches provide persuasive *evidence of absence* and indicate that for considering future policy on state testing in Texas and the overall trajectory of SB 149 in the state and its effect on high school graduation, my study is a likely starting point. Further, the topic is wide-open for additional research. Additional research would help establish, confirm, or counter-claim, the findings of this study. Sufficient contributors to the research topic would fully parse out the winners and losers from the legislation, which would be helpful when considering rational changes to SB 149, or continuing the law as is, particularly when the legislation is scheduled to sunset in the fall of 2019. That stated, and with my review of the relevant literature complete, I now transition to the theoretical framework that informs the study and functions as a strong vinculum for the methods and motifs of my study, which I describe in detail in chapters three and five, respectively. Until then, let us discuss next the theoretical framework of the study.

### **Theoretical Framework**

The pith and pattern within each verse and chapter of this study are formed from and informed by the theoretical framework of Punctuated Equilibrium Theory (PET). The theory represents a pattern of events with all phenomena that is characterized both by periods of no significant innovation and periods of great innovation, as opposed to a continuous, gradual

process of change (Colgan, Keohane, & Van de Graaf, 2012). Punctuated equilibrium as a theory originated in 1972 from the work of American paleontologists Niles Eldredge (1943–) and Stephen Jay Gould (1941–2002), who applied the term to their observations within their discipline on the development of new species. They introduced their theory in a paper that year titled, *Punctuated Equilibria*.

Prior to Eldredge and Gould, the consensus among scientists in the early 1970s was that evolutionary change occurred slowly and continuously in almost all species, and that new species originated either by “slow divergence from parental stock of sub-populations or by slow evolutionary transformation of the parental stock itself” (Punctuated Equilibrium, 2008). Gould and Eldredge turned that theory on its head when they suggested that new species in fact evolve quite rapidly, over tens of thousands or hundreds of thousands of years, rather than the millions of years assumed by traditional theory, followed by a new equilibrium, even longer periods, in which little genetic change occurs.

Today *The Gale Encyclopedia of Science* gives credence to what PET proposes— that most species originate relatively suddenly and then do not evolve significantly for the rest of their time on Earth. In this manner most species have a sudden or punctuated origin and then remain in stasis or equilibrium until extinction (Punctuated Equilibrium, 2008). Twenty years later, in 1993, Gould and Eldredge reflected back on their introduction of punctuated equilibrium,

As a neonate in 1972, punctuated equilibrium entered the world in unusual guise. We claimed no new discovery, but only a novel interpretation for the oldest and most robust of paleontological observations: the geologically instantaneous origination and subsequent stability (often for millions of years) of paleontological morphospecies. (Gould & Eldredge, 1993)

The theory was adopted quickly by other disciplines. In “Punctuated Equilibrium In The Energy Regime Complex,” for example, Colgan described that the concept of PET applied to various aspects of politics (Colgan et al., 2012). To wit, Frank Baumgartner and Bryan Jones first presented the punctuated equilibrium model of policy change in 1993. Baumgartner and Jones introduced and codified the idea that there is no stability in American politics. Instead, they distinguished a nuance amid stability and equilibrium, and contended that “institutions provide a framework that can promote stability” (Cohen, 1994), where as long as a policy system can insulate itself from new policy ideas and policy competitors, they explained, it can provide a stable arrangement, equilibrium, to the members of the subsystem. But stability is not a sure thing. Instability and change occur when “forces outside of the subsystem mobilize and challenge the existing subsystem” (Cohen, 1994). The state-testing regime in Texas, for example, and fitting to the PET model, was completely insulated for decades from new policy ideas—until SB 149.

In a subsequent work, *Agendas And Instability In American Politics*, Baumgartner and Jones focused on punctuated equilibrium and its influence on institutions. They declared that “institutions matter, but the institutions are embedded in broad social and political environments [that operate within] the limits induced by human cognitive capacity” (Baumgartner & Jones, 2009). The authors explained that the political environment and the constraints of human cognitive capacity, as factors, “provide greater explanation for the stability that structures politics most of the time than any particular institutional arrangement.” This results in periods of stability and incremental drift, punctuated suddenly by large-scale policy changes (Baumgartner & Jones, 1993). While I am reluctant to attribute the success of the unchallenged and long-standing testing

regime in Texas to the “constraints of human cognitive capacity,” the sequence just described and the resulting policy change from SB 149 exemplifies PET to a tee.

Baumgartner and Jones also made room in their model for the importance of ideas. They reasoned that new ideas can successfully invade a subsystem, leading to dramatic policy change, punctuating the equilibrium, as the existing subsystem is destroyed and replaced with a new subsystem (Cohen, 1994). These new ideas do not necessarily contest the old ideas that ruled the subsystem; instead they offer a new way of looking at a problem, a way of addressing a new problem, or a way of redefining the “dimension of conflict” associated with a problem (Cohen, 1994). In this regard SB 149 was the new idea, which did not contest the old ideas, per se, that the state tests mattered, but it did redefine and reconfigure the dimension and degree to which state EOCs brokered high school graduates— from insisting upon success on all five EOCs to taking any combination of three.

Punctuated equilibrium, in theory, is obviously about sudden and surprising across-the-board change, which SB 149 absolutely delivered. A companion argument that supports PET, and at the same time relies upon it, is that change involves path dependency, based on trajectories of macro events born from small ripples in micro events, involving incremental changes in existing institutions (Mahoney, 2001). According to Mahoney in “Path-Dependent Explanations of Regime Change: Central America in Comparative Perspective,”

Major outcomes cannot always be explained in terms of short-term processes or unique and predictable equilibria. Rather, trajectories of development are sometimes punctuated by critical periods in which relatively small or contingent events have a profound influence on subsequent events and patterns of change. When such path-dependent processes are present, adequate explanation [of the change] will require identifying key historical processes that set cases on particular trajectories of development, even if these processes rest in the distant past. (Mahoney, 2001)

This description is consistent with the work Baumgartner and Jones and the argument that the PET approach of combining slow and rapid change is explanatory for dynamics within a policy system (Baumgartner & Jones, 2009). A real world example of the slow/rapid elements in Baumgartner and Jones and Mahoney, is, again, SB 149, which slashed away 40% of the required high stakes tests, seemingly overnight, after decades of high stakes testing that had slowly evolved (Mahoney's trajectory) to a near monopoly. The testing regime was a structural arrangement in Texas (Baumgartner and Jones' equilibria), supported by the powerful constraints of No Child Left Behind (NCLB) and accountability (Mahoney's path dependent processes), and seemingly impervious to subsystems (Cohen)—until the equilibrium was punctuated by SB 149.

Regarding more on subsystems, and extending my analysis and application of a PET framework to another layer of my topic, the genesis of SB 149, I continue with what Baumgartner and Jones described as the *equilibria of policy systems* that are characterized by a series of subsystems. These subsystems include the agencies, institutions, policy entrepreneurs, and others (e.g. the Texas Legislature) who make policy related to a specific subject (e.g. EOCs in public schools). Most of the time, these subsystems are stable, and they were in the case of EOCs and the linkage to graduation, which was static for more than three decades. This stability represented a policy monopoly (Baumgartner & Jones, 2009), wherein the participants in the subsystem control policy and limit change,

Policy monopolies contain two components: policy images (how the public understands a problem) and policy venues (the institutions/groups in society with authority to make decisions about an issue). Monopolies persist when the policy image is positive. When the policy monopoly successfully maintains that positive image and when a policy venue contains one powerful group without strong competitors, the public does not champion alternatives to existing policy. (Flink & Robinson, 2016)

Indeed, high stakes testing policy had maintained a relatively *positive* image in the state all through the iron-fisted days of the testing regime, where if you failed anything you failed to graduate, which is a second tenet of a PET framework— the positive image described above. In Texas, the effect of this positive image for high stakes testing was it empowered the testing regime to the extent where state testing grew from one test to sixteen for high schools and had become a steamroller to any student or parent in the way. Former Texas Education Agency Commissioner Robert Scott, who served from 2007 – 2012, warned “that assessment and accountability has grown into something akin to a ‘military-industrial complex,’ a kind of public policy juggernaut with its own internal momentum” (Blakeslee, May 2013).

Commissioner Scott was correct. In the name of assessment and accountability, the testing regime, even today, post-SB 149, is a juggernaut, a multi-million dollar, military-industrial-style complex like Scott described. At its acme, the state’s typical agreements with the testing regime covered five years of testing at a time and cost nearly half a billion dollars (\$462 million), where for “about \$90 million per year, the State of Texas receives a battery of tests, and the top-to-bottom services those tests require” (Quinton & McGee, 2013).

Linking back to the quote above from Flink and Robinson on policy monopolies, the monopoly side of the state testing coin stayed shiny for quite some time, but the positive public image side of the coin began to tarnish in 2011 and blackened considerably throughout 2012. To the point where on January 24, 2013, the *Washington Post* reported the “Texas House eliminates funding for standardized testing,” which included an attention grabbing quote from then Speaker of the Texas House, Joe Straus, “To parents and educators concerned about excessive testing, the Texas House has heard you” (Strauss, January 24, 2013). This is the early evidence that the testing industrial complex was in distress.

But what Straus said did not portend that state testing in Texas had reached the end. It simply meant the state would soon be cutting its long ties with the testing giant Pearson as a sole provider for the state. What Straus was alluding to was both the disaster I discuss in chapter five from administering 32 tests, not counting re-tests, in K-12 in 2012, and the dismissal of Pearson for the testing company ETS, which would deliver STAAR 3–8, and STAAR EOC for approximately \$280 million, and Pearson would continue with STAAR Alternate and TELPAS for approximately \$60 million over the term of the contract (Texas Education Agency, May 2015b). This new arrangement was a major change in the state and signaled that the equilibrium that Pearson and the policy monopoly had enjoyed for decades was now punctuated and power was being redistributed, consistent with the PET framework, which charged the atmosphere for another punctuated equilibrium event soon to come, SB 149.

Beginning with the Speaker of the House’s comments in 2013, the politics on state testing were changing. The result was the passage of SB 149 on May 11, 2015. Next, what immediately followed, and not by coincidence, was a major announcement on May 18, 2015, that Pearson was fired on the EOCs and the state would contract with ETS for the EOCs and the deliverables until further notice (Weiss, 2015).

This was a tailor made punctuated equilibrium event, per the framework— a long period of equilibrium under a state testing monopoly and then a sudden toppling of the regime. I attribute the puncture to shifting micro dynamics within the social interactions of students and families caught in the policy system. And while they never organized or united with intention to challenge the policy system, collectively these micro dynamics became *the* unmoved mover, a prime mover, per the discussion on Aristotle earlier in the chapter. Indeed, students trying to graduate in good faith were going to intersect in great numbers in 2015 with the rigidity of the

testing regime. By their individual failures on EOCs, the largest wave the state had yet experienced was about to hit. These micro dynamics, from individual students failing a single EOC, were the collective mechanism that drove the macro event—the punctuated equilibrium event—the *big bang style* emergence of SB 149. As the new law of the land, SB 149 immediately established new patterns and new dynamics, also consistent with punctuated equilibrium theory (Peng, Han, Wei, & Wang, 2015).

In conclusion of this section on the theoretical framework for the study, some explication is in order regarding the “new ideas” characteristic of a punctuated equilibrium event and why I chose the framework. To my knowledge this paper is the first to: 1) overlap punctuated equilibrium theory with changes in Texas public education and changes in Texas’ long-standing testing regime; 2) analyze these events via PET in a real-time; and to 3) prophesize the next major PET event in the state, perhaps the biggest in state history, as I will detail in chapter five. Further, this study is the first to use PET as a framework to explain the actual changes in the equilibrium that resulted for English Learners. Therefore, the framework of Punctuated Equilibrium Theory (PET) was the most apt and apropos framework for launching this study on behalf of ELs, and PET is the most apt and apropos framework for concluding this study on behalf of all when in chapter five I forewarn of the next major PET event with educational policy in the state.

## **Summary of Chapter II**

In linguistics, a predicate and its arguments form a predicate-argument structure. Similarly, I used this chapter to derive from a broad review of literature a predicate-argument structure necessary to support my *good argument* that SB 149 punctuated the equilibrium of state testing in Texas in a manner that ultimately benefitted ELs more than any other student group. I

am aware, however, that in research and dissertations good arguments often fail the test of “good argument.” This failure occurs most often because one of the key elements of a good argument— a clearly stated claim underpinned by a review of literature to ratify the claim—is missing or is presented systematically but appears in disjointed fashion (Toulmin, 1958).

To understand my argument and the nature of my literature review as presented, it is essential upon this chapter’s conclusion that my point or claim regarding SB 149 and ELs that be clear to the reader and is backed up, in *jointed* fashion, throughout this paper with both a predicate and with evidence. To wit, my claim and the reasons for the claim are based on the evidence provided through the course of this chapter that: a) language matters, language is power; b) the plight of ELs matters, in terms of state and national history and current law and policy; and c) SB 149 matters most for ELs for punctuating a massive policy change in Texas regarding state testing.

In simple terms, my general principle, or warrant, is that SB 149 benefits ELs. This is stated or implied across all dimensions of my review of literature and this chapter, and the reader will note that I have provided throughout the chapter numerous linkages of the evidence with my main point that SB 149 benefits ELs. Further, the relationship between the evidence and the claims I make illustrate or demonstrate, in real life, the theory or general principle of Punctuated Equilibrium Theory. Indeed, the alembic through which my entire presentation of literature has been distilled through is the alembic of PET.

In summary of the chapter overall, PET provided the framework for the chapter, not just for analysis of SB 149 but for the production of the broad themes in my study as a whole. These themes evolved naturally from the central tenets of punctuated equilibrium theory as they played out in real time, in the field, at a target school, with a series of bursts or punctuations that I

observed while working through the study. These bursts, as I call them, are all captured by PET and became the three broad themes that drove this chapter and the study itself: a) *power*: the initiation of language itself, bursting into being from a void of nothingness and emotion; b) *plight*: the changes in federal and state law and policy on ELs bursting into being despite decades of an educational hegemony of English-only classrooms; and c) *punctuation*: the legislation itself, SB 149, bursting into being from no public discourse or mandate, changing the rules on graduation just days before the ceremonies were scheduled for the Class of 2015 across the state. With these themes intact, the next step was to unpack them. I describe my methods for doing so in the next chapter.

### Chapter III: Method

In the first two chapters I introduced and characterized the academic, linguistic, and the *functioning within U.S. policy* struggles of English learners. Together these chapters served as prelude to analysis of a change in state policy, SB 149, at the target school. This chapter presents the methodology for the study and will establish that with the appropriate statistical tests, a decision can be made about the influence of SB 149 on EL graduation rates and conclusions may be drawn about the contribution of English proficiency ratings regarding the likelihood of ELs meeting standard on EOCs. These determinations may be obtained from testing hypotheses that emanate from the research questions. The chapter affirms the rationale for the study, in terms of the overall research approach, describes the theoretical assumptions and design, and the chapter provides a description of the particular mechanics, dynamics and progression of the steps taken within the design of the study. This chapter also provides descriptive statistics and details on the statistical tests and describes the data collection and analyses procedures used in the study. Finally, the chapter affirms the integrity of the study regarding confidentiality and validity.

The driving motivation for the study was to determine what exactly resulted for ELs from some big changes in the state on testing in Texas that arrived in the spring of 2015 with SB 149: the establishment of Individual Graduation Committees (IGCs), the reduction in the number of EOCs required to graduate, and allowing qualifying students who come up short on their EOCs to graduate by approval of this new committee, the IGC. The aim for the study was to investigate the impact these major changes had on ELs, namely 1) the extent of the benefit for English Learners; 2) the specific content areas where ELs applied SB 149 to graduate; and 3) draw conclusions regarding the relationship between EL data on their English proficiency

levels and ELs meeting standard on their state EOCs. The method of research I chose was to conduct a case study on an urban high school in central Texas. Under main scrutiny were any statistically detectable effects from the changes in policy on the graduation rate of ELs in the target school's Class of 2016. The Class of 2016 was chosen for the case study over other options because it was the first graduating class in Texas where SB 149 was fully implemented and thus better positioned for before/after analyses of the new policy.

Perhaps the changes from SB 149 had moved the math in the state in favor of ELs. Also, were more students in general graduating high school in Texas as a result of the legislation? And if so, was the benefit for ELs, LEP students (Limited English Proficient) greater than it was for non-LEP (English proficient students). With this in mind I organized a study to be both post positivistic in design and quantitative in method, a design which I describe in more detail in the following sections.

### **Theoretical Assumptions**

The study was post positivistic. The warrant for the appropriateness of a post positivistic design requires a brief review regarding the logic of *positivism* first. Positivism is defined as a theory of knowledge concerned with what we know and/or accept as truth (Moore, 2010). Positivism had been the leading theory on knowledge for centuries, dating back to the scientific revolution of the seventeenth century (Nekra, 2016). In modern times, positivism continued as the generally accepted view of science from the mid-nineteenth century until only recently (Robson, 2002). Positivism's epistemological position holds that the goal of knowledge is solely to describe phenomena that are experienced in the course of life and within our surroundings—i.e. we learn and gain knowledge from direct observation and measurement of what we see and experience (Robson, 2002).

The limits of our knowledge, to a positivist, are the limits of what is observable and/or measurable, which is similar to the limits of language in the manner I described in chapter 2. In this way, a positivist sees the universe as deterministic and operating by laws of cause and effect where, if the scientific method is applied, the universe and affiliated knowledge can be discerned through direct manipulation and observation (Hacking, 1983). Thus, as a school of thought, positivism will catalog knowledge of reality as a completed collection of observations, of in both the natural and social sciences by “employing a deductive logic and quantitative research methods” (Robson, 2002).

In terms of the study, positivism seems an appropriate philosophy of science from which to derive and design analyses of SB 149 and ELs. But a central tenet of positivism, which is problematic and ultimately led to post positivism, is the belief that the researcher and the researched person or phenomena are completely independent of each other (Robson, 2002). This is a problem. Clearly, as an educator at the target school, I am impossibly entwined with the target school and I am anything but independent from SB 149 or the ELs I study. Similar dissonance is why for most scientists, scholars, and researchers, positivism is overly rigid and limiting and ignores reality— and why today researchers and scientists, including those in the social sciences, tend to view positivism as a discredited epistemology that has been replaced by more contemporary and updated philosophies of research (Kincheloe & Tobin, 2009). Standing foremost among them is post positivism, which is a contemporary and updated version of positivism that,

relaxes the deterministic rigidity of positivism and acknowledges that scientific reasoning and common sense reasoning are essentially the same process and all observation is fallible and has error and that all theory is revisable. Where the positivist believed that the goal of science was to uncover the truth, the post-positivist believes that the goal of science is to hold steadily to the goal of getting it right about reality, even though we can never achieve that goal. (Hacking, 1983)

I note that wherever a researcher declares her/his residence among the continua, his/her comfy place in the strata of the various branches of the major contemporary research philosophies, at the end of the discussion, all members of the empirical, positivist, post positivist, and objectivist families have resemblances in their design (Willis, 2007). My argument is there are resemblances, yes, but clear distinctions too, that must be laid plain, and specific to this study my research design is plainly situated in the post positivist band of the research philosophy spectrum. While there may be scholars who request “help in moving us beyond the post-positivist intellectual quagmire in which we find ourselves” (Groff, 2004), as a researcher I am housed resolutely within post positivism. This is because post positivism accepts that theories, background, knowledge and the values of the researcher can influence what is observed, and we pursue objectivity by recognizing the possible effects of our biases (Robson, 2002), which I addressed earlier in this paper.

Finally, regarding why this study is post positivistic in its design, is that “today post positivism is the most commonly adopted philosophy of science in many of the social sciences, and quantitative research based on the scientific method is considered the highest-quality work a scholar can do” (Willis, 2007). Accordingly, I made specific conjectures in this study in the form of research questions regarding the effects of SB 149 on ELs, and I tested those conjectures empirically, statistically. Further, I was aware of my assumptions and delimitations (as declared and detailed in chapter one) as potential biases (Willis, 2007). From this standpoint, my research method is post positivistic and built from my underlying belief that there is “a reality independent of our thinking that science can study” (Trochim, 2016).

### **Quantitative Case Study Design**

I used ex-post-facto data to assess the benefit of SB 149 for EL students in the

graduating class of 2016 at the target high school. In quantitative research the objective is to examine the relationship between an independent variable and a dependent variable within a population to identify patterns or trends among variables, not the cause and effect of variables (F. Gravetter, & Wallnau, L, 2009). The justification to use a quantitative case study method was to: (1) examine the proportionality of the benefit of SB 149 to ELs compared to English proficient students in terms of who needed SB 149 to graduate; (2) identify the EOC for which SB 149 was the most beneficial for ELs; 3) assess the predictive power of state TELPAS data for success on the ELA 2 EOC; and (4) bring to light areas for further research. Finally, a quantitative case study method was used to most accurately describe the current status of the identified variables in the first two research questions and attempt to establish cause-effect relationships for the variables identified within the third research question (Hawley & Rhoades, 2015). With this in mind, here again are the research questions for the study.

### **Research Questions**

My study explored the extent to which a state policy, SB 149, may have tipped the scales in favor of ELs on high school graduation in Texas for the class of 2016. The study investigated the degree to which English Learners benefitted from SB 149's Individual Graduation Committees (IGCs), identified the content areas in which ELs relied most on SB 149 to graduate from the target school, and examined the utility of existing state data on language proficiency. With this information, a researcher might determine whether there was an increase in the graduation rate for ELs at a large, urban high school in Travis County Texas that was uniquely attributable to SB 149 and generalizable to the entire state, making the case for both continuing the policy and for further research on factoring for language proficiency when it comes to the

Texas legislature making high stakes decisions regarding EOCs and graduation. The research questions were:

- RQ 1: At the target school, did ELs apply SB 149 in proportion to English proficient students to graduate by Individual Graduation Committee (IGC)?
- RQ 2: Was there significant variance between EL and English proficient IGC students on the specific End of Course Exam(s) for which the students applied SB 149 to graduate?
- RQ 3: Were data from the Texas English Language Proficiency Assessment System (TELPAS) useful in predicting success or failure on an EL's final attempt to pass the English 2 EOC before graduating under SB 149?

### **Data Collection**

Data were collected on graduates at HSX, including students who would not have graduated on cohort in June 2016 without the changes in state policy on graduation afforded from SB 149. The research subjects were all students in HSX's 2016 cohort who successfully graduated on time, including students who were allowed to fail one but no more than two EOCs under SB 149. Much of the data were provided by request from the district's Management Information Systems (MIS) department, which manages and maintains the district's software infrastructure. Data collected from MIS on the target school's Class of 2016 included,

- Grade
- LEP (Y/N)
- SPED (Y/N)
- IGC (Y/N)
- Graduation Code
- 2012 - 2015 TELPAS Reading, Writing, Listening, Speaking, and Composite scores

- 2012 – 2016 EOCs for Algebra, Biology, ELA 1 and ELA 2, and US History (spring, summer and fall)

The student performance data listed above are kept in the district's MIS system, including EOC and TELPAS data, which are provided by the state. These data were merged with additional student and demographic data from a custom dataset created by the district expressly for the study, allowing deep analysis and reporting on ELs, specifically. The custom data set contained archived language proficiency data as well as data on each EL student's years in country and heritage language. Combined, these sources provided a robust and rich data set for this study. With the data set assembled, I had the perfect tool in hand to conduct a quantitative case study on the target school and test the hypotheses that unfolded naturally from the research questions.

**Subjects.** The subjects of the study consisted of 210 students who graduated under the general education program from HSX in June of 2016. Gender among the students was roughly balanced, with females at a slight majority (52%). The ages of the graduates fell between 16 and 20, with an average age of 17.9. More than three quarters of the subjects were economically disadvantaged (75.6%); a majority were At-Risk (65.8%); 12.4% were Gifted and Talented; and a small number of the subjects, 1.3%, were coded Special Education but graduated under general education requirements.

The ethnic background of the 210 subjects was diverse. Hispanic (77.3%) and Black (14.7%) were the largest of the reporting categories. Subjects also included White (4.0%), Asian (3.1%), American Indian (.4%), and Two or More (.4%). For reference and comparison, the ethnic distribution for the Class of 2016 statewide was 52% Hispanic (-25.3), 28.9% White (+24.9), and 12.6% African American (-2.1) (Texas Education Agency, 2016b).

ELs comprised 18% (38) of the subjects, which is nearly equivalent to EL representation

statewide (18.2%) (Texas Education Agency, 2016b). Nine different home languages were identified among the ELs, including Arabic, Burmese, English, French, Haitian Creole, Nepali, Other, Spanish, and Vietnamese. Within the group of 38 ELs, there were additional reporting categories: Asylee Refugee and Immigrant status comprised 3.1% of the total subjects, each, respectively. Also, the Years in Country reporting category among the ELs ranged between 2 and 6+ years, with an average of 5.46 years in country. (Note the average is skewed because HSX’s district tracks years in country up to a category of “six or more years.” Hence, the average claimed in the study, 5.46 years, is predicated on research subjects with 6+ years in country equaling just 6 for the purpose of averaging.)

At a glance, Table 3.1 shows data on the subjects at HSX by the student categories described above. The percentages from this data are comparable with the percentages reported by other Title I high schools in Texas (Texas Education Agency, 2016c).

**Table 3.1**  
**Student Synopses: Class of 2016 at HSX**

Class of 2016 (n=210)	Percentage of students
Male	48
Female	52
American Indian	.4
Asian	3.1
Black	14.7
Hispanic	77.3
Two or more	.4
White	4

Table 3.1 Continued

<b>Class of 2016 (n=210)</b>	<b>Percentage of students</b>
ECOD	75.6
At Risk	65.8
LEP/EL	18
Immigrant	3.1
Asylee/Refugee	3.1
SIFE	1.3
GT	12.4
SPED	1.3
IGC Reviewed	15.4
IGC Graduated	10

Not all students on HSX’s 2016 cohort list were included in the study. Subjects were excluded from the study if they met any of the following criteria:

1. Did not graduate on June 1, 2016 (e.g. the student was reviewed by the IGC but the student did not qualify for or failed to meet the terms established by the committee).
2. Did not graduate under Texas PEIMS Graduation Codes 31, 32, or 34/D (these codes assign the particular diploma within the hierarchy of diplomas awarded in in Texas, which are, in ascending order, Foundation, Recommended, and Distinguished).
3. Had been previously identified as intellectually disabled, placed in a life skills setting and/or graduated under a diploma/graduation code afforded under Special Education (i.e. the student graduated and participated in the ceremony but the student graduated under an IEP; SB 149, therefore, was non-applicable).

**Site and Sampling.** The selected school, HSX, served as a proxy, or sample, of the hundreds of Title I high schools in Texas (Texas Education Agency, 2016c). As a site, HSX was similar to Title I schools statewide, offering similar demographics, similar student groups

(including ELs), and similar student body makeup and characteristics, from tip to the proverbial tail.

The study zeroed in on the students at the selected school whose 5 EOC test scores had not met state standard in time for graduation. Not meeting standard on one or two EOCs introduced a situation where the only available option for on-time graduation for the student was to utilize the provisions of SB149 and graduate by IGC. Under SB 149, the student is allowed to graduate with approval from the campus' Individual Graduation Committee.

To more carefully examine those who failed to meet state standard on two or fewer of the state's EOCs, and to provide the appropriate statistical contrast between traditional graduates and the students graduating IGC, including ELs and non-ELs, the subjects of the study included all general education graduates in HSX's Class of 2016. (As stated previously, students graduating via Special Education provisions were excluded from the study.) Structured thusly, the subjects of the study were the population of *all* general education HSX students who graduated in June of 2016. HSX, itself, served as the sample of Title I public high schools in Texas.

The data were a mix of categorical, ordinal, and discrete variables. For LEP and IGC, for example, the data were categorical, with 1's and 0's in the data set for Yes/No. The TELPAS data for ELs were in part ordinal, with the four TELPAS domains of listening, speaking, reading, and writing ranked 1-4, each, depending on whether the student was rated beginner, intermediate, advanced, or advanced high, respectively, and in part discrete with a TELPAS Composite score, ranging from 0-4. The STAAR EOC data were categorical in part, with 1's and 0's in the data set for Yes/No on met minimum standard (i.e. passed), and discrete in part with the students' scale scores for all tests from all test administrations in the students'

academic history, with scale scores ranging, among the tests, from 845-7065.

Before beginning the analyses, I carefully examined the data in the master file to ensure all information vital to the study were included. In hand were data the district had reported to the state for HSX’s 2016 cohort of 302 students. Two hundred ten of these students became the focus of the study. The drop, or plunge, more accurately, from 302 in cohort to 210 for the study was because over 90 rows of data (each row a student) were excluded from the data set as these students either withdrew, took courses in tested subjects out of state, or graduated (and/or continued) under Special Education provisions. These exclusions are noted in Tables 3.2 and 3.3 below.

**Table 3.2**  
**Excluded from Study, Withdrew**

Measure	<i>N</i>	Non-LEP	LEP
Withdrew to Enroll in Austin Area Charter	11	10	1
Withdrew to Enroll in School Outside Texas	3	3	0
Withdrew to Enroll In Texas Private School	15	5	10
Withdrew for Home Schooling	6	4	2
Withdrew Non-reportable/Enrolled Other Texas School	16	13	3
Withdrew Other Reason/Unknown/Not Listed	4	3	1
Withdrew to Return to Home Country	4	0	4
Total Excluded, Withdrew	59	37	22

**Table 3.3**  
**Excluded from Study, Other Reason**

Measure	<i>N</i>	Non-LEP	LEP
Graduated but received credit for tested subjects out of state	13	6	7
Graduated under IEP/SPED or SPED continuer	20	13	7
Total Excluded, Other Reason	33	19	14

After the initial screening, data associated with the remaining students and apropos to the research questions were exported from the master EXCEL file into a software package from IBM, SPSS Statistics Version 20. Upon import, each column and row appearing in the resulting SPSS' *Data View* were inspected to ensure no errors arose with the import. In addition, a series of random selections and comparisons were conducted to verify the import. Upon completion, 210 students were on record for the study, 38 (18%) of whom were Limited English Proficient (LEP) and 172 (82%) were Non-LEP. These data and a summary of the students excluded are indicated in Table 3.4.

**Table 3.4**  
**Student Subjects/LEP\*Non-LEP**

Measure	<i>N</i>	Non-LEP	LEP
PEIMS 2016 Cohort of record for HSX	302	228	74
Excluded from study: Withdrew (Table 3.2)	(59)	(37)	(22)
Excluded from study: Other (Table 3.3)	(33)	(19)	(14)
Cohort members under study	210	172 (82%)	38 (18%)

**The Land of Not.** Much of the study was to explore potential linkages between language proficiency and graduating Individual Graduation Committee (IGC) under SB 149. There is a

matrix of analyses afforded in this concern, from the students coded by the state as either LEP, or not, and coded by the state as either graduating IGC, or not. The dynamic may be conceptualized as a four cornered arena where the intersecting sides might influence each other, perhaps lengthen or shorten each other, or not. For example, the longer the LEP ‘side’ is, so to speak, the longer the IGC side will be— or not. To wit, being limited English (or not) may or may not relate to graduating IGC or not (Table 3.5), and conversely, graduating IGC or not may or may not relate to being English proficient, or not (Table 3.6).

**Table 3.5**  
**LEP/Non-LEP\*IGC graduates**

Measure	<i>N</i>	IGC	Percent IGC
LEP	38	11	28.9%
Non-LEP	172	10	5.8%
Total Graduates	210	21	10%

**Table 3.6**  
**LEP\*IGC/No-IGC graduates within Cohort**

Measure	<i>N</i>	Non-LEP	LEP
IGC	21 (10%)	10 (4.8%)	11 (5.2%)
No-IGC	189 (90%)	162 (77.1%)	27 (12.9%)
Total Graduates	210	172 (82%)	38 (18%)

The original master file had each student’s EOC score in the tested subjects, often multiple scores per test due to re-takes. Each LEP student’s TELPAS scores also joined the fray. This involved thousands of cells of data. I reduced these entries in SPSS to include only the highest EOC score on record for each test and the latest TELPAS scores on file, excluding

the rest. Much data remained; however, a reduction a framework pertinent to the study are summarized in Tables 3.7 and 3.8.

**Table 3.7**  
**E2\*TELPAS\*LEP**

Measure	<i>N</i>	Mean E2 Scale	Percent ( <i>N/Total</i> )
TELPAS Beginner and Intermediate	12	3607 (Fail)	32%
TELPAS Advanced and Advanced High	26	3823 (Pass)	68%
Total	38		100%

**Table 3.8**  
**E2\*Non-LEP**

Measure	<i>N</i>	Mean E2 Scale
English Proficient	172	3964
LEP	38	3755
Total	210	

*Pertinent to the study* is language I compose carefully, as the reader will note that of the 5 EOCs, only English 2 (E2) is included above. The word ‘pertinent’, not to be cryptic, carves out the room needed for now for a point I make later that the study, that the whole consideration of SB 149 and IGC boiled down to the English 2 EOC— almost entirely. As I will expound upon later in the chapter, in terms of EOCs and SB 149, E2 was the common issue— for all IGC students, *both* LEP and English proficient, the why of which I disclose later in the chapter.

Setting the issue aside for now, the tables above, taken together, and with a focus on E2, provide the formative and critical framework of data I needed to complete the study. These data set the table to address the research questions and test the hypotheses I introduced in chapter

one. In this pursuit, there are several straightforward relationships which leap figuratively from the tables above (again no pun intended). For example, while only 1 in 17 English proficient students needed SB 149 to graduate by IGC, nearly 1 in 3 LEP students did, suggesting, in a common sense manner, that LEP students rely on SB 149 to graduate far more than English proficient students. Further, the average English proficient graduate passed the English 2 EOC handsomely, while the average EL graduate *barely* passed, squeaking by after *seven or eight attempts* with a score only 5 points, on average, above the minimum acceptable score for E2 of 3750.

Going to the heart of research question 3, regarding TELPAS and its utility as a measure of language proficiency, it is clear from Table 3.7 that the average LEP student who scored Beginner or Intermediate on TELPAS failed the English 2 EOC. Meanwhile, the average EL scoring Advanced or Advanced High on TELPAS passed E2. What is more, *all* LEP students scoring Advanced High on TELPAS passed E2, suggesting, in another common sense way, that the Texas English Language Proficiency Assessment System (TELPAS) is useful in predicting success for an EL student on the state's English 2 EOC.

But these combinations of common sense observations and takeaways are not adequate for drawing statistical conclusions for the general population. In this regard, my case study of HSX would represent a random selection among Title 1 urban high schools and speak to the population of similar schools in Texas. The next step, naturally, was to test hypotheses from the research questions for statistical significance on these perceived relationships and outcomes. Chi-square tests were appropriate for the first two research questions and multiple regression for the third, given the type of research questions to be answered, the nature of the cohort data to analyze, and the binary nature (LEP YES/NO, IGC YES/NO) of the student groups involved

in the study. But before moving forward, it was critical that I pause to check that the underlying assumptions of these tests are satisfied. At least, approximately satisfied—and for me to point out *if, when, and where* they were not, even in part, which occurs on occasion in the human sciences (Gel, Miao, & Gastwirth, 2005).

### **Data Analysis**

The data for the study were drawn from the HSX's district's data management systems, which entailed pulling HSX's demographic data, cohort data, EOC performance data, language proficiency data, and additional data collected according to state and federal definitions—and combining the information per each student subject into a single file. To achieve this, the data were coded and organized into a format that provided the information necessary to run the statistical analyses to test the hypotheses of each research question.

With the type of data obtained for the study— non-human subject data comprised of categorical (nominal) variables— and with the study making secondary use of de-identified data, with no links to the identifiers, the most appropriate statistical test and mathematical analysis procedure was chosen for each research question (F. Gravetter, & Wallnau, L, 2009). Question by question, the following will explain what statistical procedures were used to answer the research question. In general, the Chi-square test of independence is used to determine if there is a significant relationship between two nominal (categorical) variables. The frequency of each category for one nominal variable is compared across the categories of the second nominal variable (F. Gravetter, & Wallnau, L, 2009). Therefore, to address the first research question, I ran various Chi-square tests for independence on combinations of LEP/NON-LEP/IGC categorical data. Similarly, Chi-square tests for independence were

intended for LEP/NON-LEP/EOC categorical data for the second research question; however, there was a surprise finding with the data that thwarted this intention, as I will explain in detail in the appropriate section.

Finally, for the third research question I applied multiple linear regression tests because the question hypothesized about relationships between proficiency level descriptor data from the Texas English Language Proficiency Assessment System (TELPAS) and last chance End of Course exam results before graduation. The design required regression analyses to examine the relative contribution of the various proficiency level descriptors to success on a student's EOC. Regression was selected in lieu of path analysis and other options as no predictions were made regarding the various relationships between the language proficiency level descriptors themselves prior to the study (Teall, 2015). To test each research question, the apropos data, without prediction, were entered into SPSS and the output was analyzed (F. Gravetter, & Wallnau, L, 2009).

### **Assumptions of Chi-square and Multiple Regression**

Before applying any statistical test, I tested for potential violations of the underlying assumptions of the particular test. Importantly, when data fail *multiple* statistical assumptions, the results are often invalid. Because something was potentially amok with my data, a review of the assumptions of the Chi-square and multiple regression tests were in order for my study. To reconcile any concerns, I carefully examined the assumptions of each test against the data within the study.

**Assumptions of Chi-square.** I used the Chi-square test for independence for the first research question because I had frequency data from HSX that I could use to evaluate the relationship between pairs of variables— LEP and IGC in one case, and LEP and EOC in the

other, respectively. Chi-square tests use proportions between two variables from the sample data to test hypotheses about the corresponding population and, more importantly, to determine whether there is a consistent and predictable relationship between the variables (F. Gravetter, & Wallnau, L, 2009). The core assumptions of the Chi-square test are:

- 1) *Independence of Observations*, where each observed frequency is generated by a different subject.
- 2) *Size of Expected Frequencies*, where the frequency in every cell is greater than five.

The first assumption, in terms of the study, was straight forward, in that each student in the study was either LEP (i.e. EL) or NON-LEP (i.e. English proficient) and the student either graduated IGC or graduated without it. The resulting dynamic was that each observed frequency of these categories was independent. Secondly, with the first assumption, the nature of student data, themselves often categorical, are a natural fit for the Chi-square test (Looney, 2008). Thus, the first assumption was met, for all intent and purpose, given the data. There was an issue, however, with the second assumption as I had foreshadowed. The second assumption had a violation with the expected count for the LEP/IGC student cell, which is demonstrated in the LEP/IGC Crosstabulation table in the next chapter. The small expected frequency in the output charted in the table, also known as a small expected count, created the potential for a distortion of the resulting statistic (Looney, 2008).

A low expected count, however, is not uncommon. But it can be problematic when researchers proceed with a small expected count and make “naïve comparisons between two or more groups without conducting any post hoc tests to determine whether the contrasts were significant” (Franke, Ho, & Christie, 2011). I did not make this mistake. The statistical tonic for my *case of the lower than expected count* was to execute a post hoc test. I used Cramèr’s V

(phi-coefficient) post hoc, to assess the strength of the relationship— which I will address in more detail in the upcoming discussion of the first research question. What is important to note at this point is that the assumptions and caveats for a Chi-square test of independence were satisfied and I carried onward with the first research question, performing Chi-square tests with the data at hand.

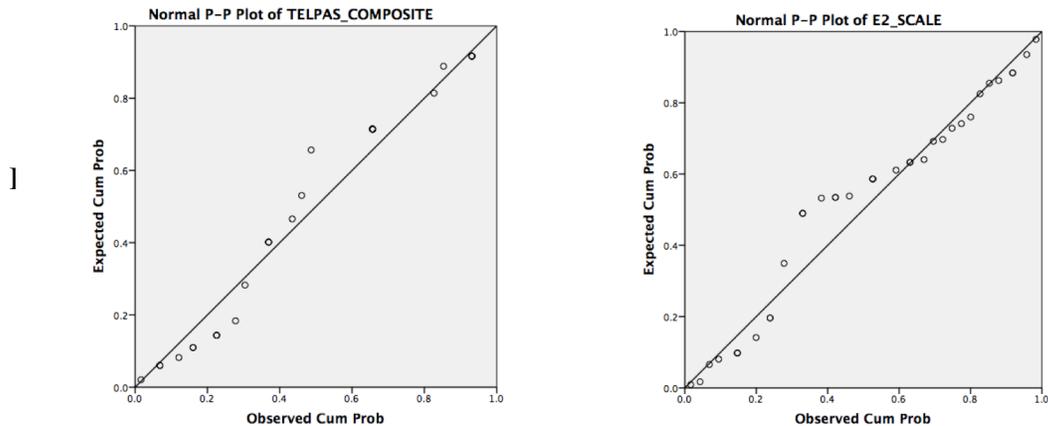
**Assumptions of Multiple Regression.** Where there is a linear relationship between two variables, it is possible to derive an equation to provide a precise, mathematical description of the relationship (F. J. Gravetter & Wallnau, 2000). Once developed, it becomes possible to plug in a known value for one variable (e.g. a student’s TELPAS score) and calculate a predicted value for the second variable (e.g., the student’s EOC English 2 score). As such, the general statistical process of finding and using a prediction equation is known as regression (F. Gravetter, & Wallnau, L, 2009), the basic assumptions of which are:

- 1) Linear Relationship exists between the outcome variable and the independent variable(s).
- 2) Multivariate Normality such that the residuals are normally distributed.
- 3) No Multicollinearity where all independent variables are not highly correlated with each other.
- 4) Homoscedasticity where for any set of X's, the variance of Y shall be similar (Sevier, 1957).

The output data from the multiple regression model used in this study were examined against these assumptions and all assumptions were satisfied. Addressing each and taken in the order listed above, 1) scatter plots generated in SPSS permitted visual confirmation of *linear relationships* and that linearity explained variable interactions; 2) *Multivariate normality* was

confirmed in SPSS using a probability plot (P-Plot) to compare the TELPAS and E2 data against a perfectly diagonal line ( $y=x$ ) (Figure 3.1).

**Figure 3.1 – P-PLOT: TELPAS Composite; English 2 Scale Scores**



Furthermore, 3) Table 3.6 (above), a correlation matrix, confirmed *no multicollinearity*, as the independent variables were not perfectly correlated. It is interesting to note now (and come back to later) that there was correlation between the variables and it was significant, where higher scores on TELPAS domains (with the exception of TELPAS Reading) were associated with higher scores on E2; the same was true for TELPAS Composite. This will be explained in detail under research question 3.

**Table 3.9**  
**Correlation Matrix for Predictor and Outcome Variables**

	TR	TW	TL	TS	E2
TR	1	.254	.019	.034	.229
TW	.254	1	.670**	.704**	.637**
TL	.019	.670**	1	.858**	.417**
TS	.034	.704**	.858**	1	.510**
E2	.229	.637**	.417**	.510**	1
TC					.535**

Note. TR= TELPAS Reading; TW= TELPAS Writing; TL= TELPAS Listening; TS= TELPAS Speaking; TC= TELPAS Composite; E2= English 2 EOC Scale Score \*\* p < .01.

Finally, 4) In full disclosure, I had a concern, a hesitation regarding homoscedasticity. Specifically, two students had very low TELPAS scores *and* very high EOC scores, which defies logic and the general correlations observed between the variables and challenges the tenets of homoscedasticity, and, even worse, might uphold the null hypothesis for the third research question! However, after careful analysis I determined that corrections to the model were not in order. To begin, each probability distribution for y (E2, the dependent variable) had nearly the same standard deviation regardless of the x-value (TELPAS, the predictor variable) and equal variances of error scores were evident, meaning with or without these two outlier cases the model met the conditions of homoscedasticity.

To be certain, however, I tested for normality and homoscedasticity using a general linear model, with, as mentioned, the students' EOC English 2 scale score (E2) as the dependent variable. The fixed factors for the model were TELPAS reading, writing, listening, speaking, and together these data were used as the main effects to calculate the residuals. The resulting Skewness (-.088) and kurtosis (.454) values were less than the standard error values of .383 and .750 respectively, confirming no significant degree of skewness or kurtosis (Table 3.10) for the dependent variable, E2.

**Table 3.10**  
**Univariate Analysis of Variance**

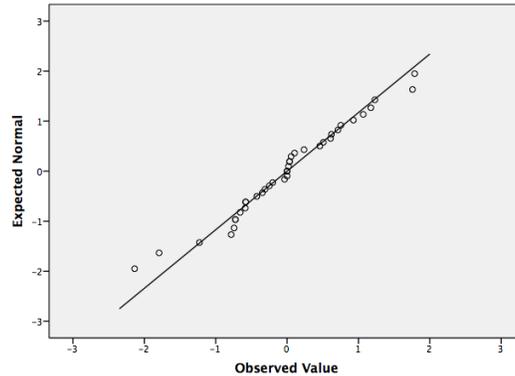
		Statistic	Std. Error
E2	Skewness	-.088	.383
	Kurtosis	.454	.750

Finally, two more tests, Kolmogorov-Smirnov and Shapiro-Wilk tests, resulted in p-values that were greater than .05, strong evidence (Table 3.11) that there was no significant deviation from normality from the residuals. A Q-Q Plot visually confirmed the normality where it was apparent that the observed residual values aligned closely with the diagonal line that represented a true normal distribution (Figure 3.2). Therefore, I concluded that the data for the TELPAS and E2 portion of the study demonstrated normality and equality of variance and satisfied the conditions for performing analysis for variance calculation, regression— and with that I met the final assumption and proceeded with research question 3.

**Table 3.11**  
**Tests of Normality**

Standardized Residual for E2	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	.109	38	.200*	.977	38	.598

**Figure 3.2 – Normal Q-Q Plot of Standardized Residual for E2**



### **Informed Consent and Confidentiality**

Ethics in research dictate that the privacy of subjects is preserved. This is a critical component in scholarly practice, although there is room for debate regarding the degree of austerity of methods to preserve and protect privacy. In one camp there is the voice that we are “only one scandal away from legislation that will regulate or even prohibit the use of [even] de-identified data for research purposes” (Gellman, 2010). And others argue that it is “not necessarily desirable to gain consent from study participants for how their data are used, in that this curtails researchers’ freedom to interpret their data and restricts the critical nature of the discipline” (Wiles, Charles, Crow, & Heath, 2006). Still others advise that the balance of protecting respondents from harm by hiding their identity while at the same time preventing “loss of ownership” is an issue that needs to be addressed (Grinyer, 2009).

In the instance of the current study, however, I had no cause to inform the participants or keep them uninformed. Issues of freedom and ownership were not a concern. Rather there is not a requirement per research guidelines for this type of study to inform and/or receive individual consent from the subjects. The performance data, therefore, were used without the subjects’

consent. This is permissible in the case of this study because simple de-identification of data in the study are sufficient to ensure the confidentiality of each subject's information. This was true even after the study was completed, because the subjects' personal information was not in any way associable with the design, the methods, or with the findings of the study.

I obtained written permission to access the student data from HSX's Principal. Written permission was also granted from the University of Texas Institutional Review Board. Obtaining both permissions was in keeping with the university's research guidelines. After approval was granted, the data were acquired and de-identified promptly, electronically, to achieve the required de-identification of the subjects. A further assurance of confidentiality is that any third party that might examine HSX's *public* data, for any reason, would not be able to link public data on HSX to the information in the study in a manner that would reveal any of the subjects' identities. The information that developed from the study, therefore, cannot be traced back to or attributed to the original subjects, even speculatively. Thus, confidentiality was achieved by following the university's guidelines and by an active effort to remove all trace of the subjects' identities from the data obtained (Jamison, 2007).

### **Validity and Trustworthiness**

The EOC data obtained for this study were provided to the district by the Texas Education Agency. Data on the individual subjects were pulled from the district's data management systems, which included data that were populated by the campus. Therefore, the validity of the data used in this study is subject to the validity of the data collection processes within the antecedent data systems, both state and local, which I accepted as valid. In short, if the data that are housed in campus, district and state data systems are valid, then the data used

in this study are valid, as well.

Regarding trustworthiness, in developing the spreadsheets used in the study, I entered nothing by hand. I used database merging software to eliminate human error. With software utilities, I merged data from state, district, and campus systems into one file. The data were exported electronically, directly from the various student information systems into a master spreadsheet. The importing and merging were accomplished via features offered with an EXCEL add-in, commercial program called AbleBits. The output from AbleBits produced a data set of the highest integrity.

### **Summary of Chapter III**

Borrowing the prose of Dr. Stephen Edelston Toulmin, my goal for this study was to raise problems, not to solve them; to draw attention to a field of inquiry, rather than to survey it fully; and to provoke discussion rather than to serve as a systematic treatise (Toulmin, 1958). Every study provides its takeaways, if not the findings themselves. Meaning, there is something in all studies, quantitative or qualitative, that the reader may or may not take full note. There are elements in every study that interest the researcher or the reader, perhaps independent of the findings. What leaps out, for example, what puzzles, what is clever, what is incomprehensible, what works, what does not work?

It has been said that argumentation is the central process through which citizens and policymakers arrive at moral judgments and policy choices (Majone, 1989). This study revolved around a policy choice, where SB 149 altered long-standing policy on graduation in Texas in a manner so rapid as to be unprecedented. Accordingly, the methodology for my study was carefully assembled and hewn in a way to properly frame an argument that SB 149 educed a

major change in Texas education policy. My intent was to achieve examine whether the policy change benefitted English Learners more than English proficient students. Furthermore, are there lessons learned from SB 149 that might lead to additional policy evaluation, or re-evaluation, to improve the graduation rate of ELs from Texas public schools?

An important factor to note is the outer landscape during the period under study was 2016, a presidential election year, and 2016 was a difficult time for many English Learners. The debate on policy issues for ELs, including the matter of constructing a wall along the border, was more complex and polarizing than ever. There were concerns among EL advocates that their voices would be lost in the frenetic discourse and the tangled host of other pressing issues vying for attention during the election. Each news cycle included reporting on the overall axis of conflict and disagreement between the major candidates and their parties, the polarization of opinion and values, the willingness of groups to resort to nearly any means to resolve issues to their own benefit. All of this had consequences and left questions on the table for ELs— *will the Dream Act succeed or fail? Is my family going to be kicked out or deported? Is an international wall coming soon for Texas?*

The policy world is a tough one, fueled by argument, testimony, statements, and proposals. The election cycle affirmed that deliberations between conflicting parties are arguments; arguments made as convincingly as possible— and then eventually somebody wins. Regardless of the election outcome, the lesson was clear that to prevail in the race and realm of elections and policy involves tremendous efforts to overcome the competing interest groups who are working in their own favor. Winning on a policy issue is a competitive process, where ideas and interests are at stake and are therefore vied for by educating and motivating the citizenry, lobbying key players, or by applying political pressure. SB 149 was born in Texas in the mix of

this cauldron. And now, with more than a year of hindsight, it is a fair question to ask whether SB 149 benefited English Learners. In chapter four I discuss the results of the study.

## **Chapter IV: Results**

In this chapter, I describe the results from the statistical tests I used for the study. In the previous chapter I reviewed the descriptive statistics that underpin and are critical to the study, and I described the statistical test appropriate for each research question. I indicated that the analyses would include Chi-square tests of independence and multiple linear regression modeling. I also demonstrated that the assumptions for these tests were carefully examined and the data for each test satisfied the assumptions required. With these concerns behind us, this chapter moves the study forward into the result. The chapter is organized by the each of the three research questions, which together will allow for scientific determinations regarding the relationship of a student's English proficiency level and needing SB 149 to graduate.

### **Research Question 1**

*At the target school, did ELs apply SB 149 in proportion to English proficient students to graduate by Individual Graduation Committee (IGC)?* The null hypothesis stated that ELs and English proficient students (non-ELs) rely on SB 149 at about the same rate to graduate. The root and rationale of the null is that educational policies are not written, in modern times, to privilege expressly one student group over another. Therefore, in terms of the legislation's intent, the number of students who rely on SB 149 to graduate should be about the same for both groups, ELs and English proficient students alike. To accept or reject the null, I chose the appropriate statistical test, in this case, the Chi-square test for independence.

As stated earlier, the goal for the Chi-square test for independence is to use the frequency data from a sample to evaluate the relationship between two variables in the population. For the research under consideration, HSX data are the random sample— an urban Title 1 public high school— amid the population of urban Title 1 public high schools in all of Texas. Structured

thus, I applied the test.

Factor A for the test was English proficiency, 2 levels: LEP YES (limited English proficient); and LEP NO (English proficient). Note that English Learners, *EL* students, are PEIMS coded by the state as the category *LEP*, Limited English Proficient, and LEP is a state-monitored group. Factor B was the students' graduation method, 2 levels: IGC YES (graduated by Individual Graduation Committee under SB 149); and IGC NO (graduated traditionally, without assistance from the legislation). Note that Individual Graduation Committee graduates, *IGC* students, are coded by the state as IGC, another state-monitored group. For the state's records, IGC means the student failed at least one and passed at least three out of the state's five End of Course Exams (Texas Education Agency, 2018c).

With the data entered into SPSS for the two factors, the output resulted in an expected count of less than 5 for LEP YES\*IGC YES students (Table 4.1). The low count is the problem I described earlier. Better sense of it can be made when interpreted that with only 10 of 162 LEP NO\*IGC YES students, we should *expect* only about 4 LEP YES\*IGC YES students, but in actuality there were *11* such students— hence the expected count was much lower than the actual, or another way to express it, statistical expectations for the group were that far fewer LEP students should graduate IGC than was actually the case. In reality, almost *three times* as many LEP students needed SB 149 to graduate IGC than would be expected, statistically.

So again, the low expected count in this cell, lower than 5 a red flag per Chi-square assumptions, 3.8 in our case, at first glance is a violation (Table 4.1). However, the interpretation I provided reconciled the violation. Note also that the size of the standard residual for the cell is 3.7. The standardized residual is a measure of the strength of the difference between observed and expected values from the hypothesis, where the larger the standard

residual, the more confident we can be that the difference is real and not a chance fluctuation. The rule of thumb for standard residuals is if the residuals are +/-3, then it means that something extremely unusual is happening (Parunak, 1988). Per the tenets of Chi-square and this rule of thumb, we want a big residual to reject the null hypothesis, and we have exactly that, a big one at 3.7. With the violation resolved, I moved forward.

**Table 4.1**  
**LEP \* IGC Chi-square Crosstabulation**

		IGC			
		NO	YES	Total	
LEP	NO	Count	162	10	172
		Expected Count	154.8	17.2	172.0
		Std. Residual	.6	-1.7	
	YES	Count	27	11	38
		Expected Count	34.2	3.8*	38.0
		Std. Residual	-1.2	3.7	
		Count	189	21	210
Total	Count	189	21	210	
	Expected Count	189.0	21.0	210.0	

\* Expected count less than 5. The minimum expected count is 3.80.

The data from the crosstabulation above confirmed that something unusual indeed was afoot between LEP YES and LEP NO students and IGC, with far more ELs than expected graduating IGC. To confirm, I again examined the Chi-square test results, this time to assess the significance level of the relationship between the two variables. Remember the null hypothesis for this research question was *for the general population, there is no consistent, predictable relationship between limited English proficiency and graduating IGC*. With df=1 and alpha .05, the critical value for a 2X2 Chi-square test is 3.84 (a standard metric for the test under the given parameters). Because the Pearson Chi-Square value of 18.507 (Table 4.2) exceeded the critical

value of 3.84, the result was to reject the null and conclude there is a consistent, predictable relationship between limited English proficiency and graduating IGC. In short, if you are an EL student, you are much more likely to need SB 149 to graduate than your English proficient peers.

**Table 4.2**  
**LEP \* IGC Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1 sided)
Pearson Chi-Square	18.507 <sup>a</sup>	1	.000		
Fisher's Exact Test				.000	.000
N of Valid Cases	210				

a. 1 cells (25%) have expected count less than 5. The minimum expected count is 3.80.

With the relationship confirmed, to test the strength of the relationship, in addition to significance, I used Cramèr's V (phi-coefficient) to provide a measure of effect size. The symmetric measures results of the test are indicated in Table 4.3. The data fashioned a Cramer's V of .297, and with  $df = 1$ , the spectrum for standards on interpreting the effect size with Cramer's V are *0.10 small < 0.30 medium < 0.50 large*, which essentially means there is a medium effect when considering the effect of being LEP on graduating IGC under SB 149.

**Table 4.3**  
**Symmetric Measures**

		Value	Approx. Sig.
Nominal by Nominal	Phi	.297	.000
	Cramer's V	.297	.000
N of Valid Cases	210		

## Research Question 2

*Was there significant variance between EL and English proficient IGC students on the specific End of Course Exam(s) for which the students applied SB 149 to graduate?* The simple answer is no. There was not. Surprisingly, SB 149 provided tremendous relief to all IGC graduates, LEP and non-LEP both, in fact to everyone across the spectrum—for *just one* test. That test was English 2 (E2). One hundred percent of IGC students, regardless of language proficiency, EL, or not, regardless of race or gender or income, or of any categorical measure to be chosen mattered, because one hundred percent of students requiring SB 149 to graduate counted on the legislation because they *all* failed E2 (Table 4.4).

**Table 4.4**  
**IGC EOC Passing Rate**

		ALG	BIO	E1	E2	US
LEP	YES (11)	11 (100%)	11 (100%)	5 (45%)	0 (0%)	9 (82%)
	NO (10)	9 (90%)	10 (100%)	6 (60%)	0 (0%)	8 (80%)
Total	21	20 (95%)	21 (100%)	11 (52%)	0 (0%)	17 (81%)

SB 149 made not a ripple, none at all, for *all* the other EOCs *combined*. It turned out that Limited English and English Proficient performance, two very different groups, were neck and neck on the other EOCs— algebra, biology, and U.S. History. The groups were also *nearly* neck and neck on English 1 (E1), though English proficient students narrowly outperformed the ELs (Table 4.5).

**Table 4.5**  
**IGC EOC Failure Counts**

		ALG	BIO	E1	E2	US
LEP	YES (11)	0	0	6	11	2
	NO (10)	1	0	4	10	2
Total	21	1	0	10	21	4

### Research Question 3

*Were data from the Texas English Language Proficiency Assessment System (TELPAS) useful in predicting success or failure on an EL’s final attempt to pass the English 2 EOC before graduating under SB 149?* It was hypothesized that TELPAS data from the state’s assessment system for English proficiency would predict success or failure on ELs’ final attempt on EOC E2 before defaulting to SB 149 and graduating IGC. The predicate for the hypothesis was that high TELPAS scores would equate to success on E2 and low TELPAS scores would be explanatory of failure.

The reader may note that the question excludes from consideration the English 1 EOC. This was intentional. E1 was excluded from analyses because under certain conditions ELs are allowed a special provision from the state where they take the E1 EOC once, only once, even if they fail the exam. Hence for ELs under the special provision there is no “final attempt to pass” E1 before graduating under SB 149. Consequently, including E1 for analyses would be a mismatch for the logic of the research question. Further, because E2 is designed by the state to be a more rigorous extension of E1, analyses limited to E2, alone, is sufficiently useful.

Therefore, limited to E2, regression and multiple regression analyses were conducted in three parts, first by analysis of EL individual TELPAS Composite scores presiding as the

independent variable against the students' individual E2 scale score as the dependent variable. (Chapter 1 gave a primer on how the TELPAS domains, listening speaking reading and writing, are weighted by the state to determine the composite score.) The outcome of the regression, it was hypothesized, would speak to the utility of TELPAS as a whole.

Second, data on each of TELPAS' four component parts, listening, speaking, reading and writing, respectively, were analyzed as four individual independent variables against the students' individual E2 Scale Score as the dependent variable. And third, TELPAS Writing, alone, was run as the independent variable with E2 Scale Score as the dependent variable and the result was compared to the result of the regression on TELPAS Composite.

To recap, each approach used the E2 scale score as the dependent variable with differing elements and combinations of TELPAS scores as the independent variables. The first analysis included the composite of all domains; the second analysis broke the composite down into its un-weighted component parts; the third regression was decided, with writing alone as the dependent variable, after a separate stepwise method of linear regression had isolated writing as uniquely significant and had excluded the other three independent variables in the second test because they were not statistically significant. The result of TELPAS Writing regression was then compared to the TELPAS Composite result.

In short, the goal of the analyses was to determine the best predictor from TELPAS on E2 achievement. For the first test, TELPAS Composite (TC) was the independent variable, with TC having scores for each student ranging discretely from 1 to 4, 1 as beginner, 4 as advanced high in describing English proficiency. The model's output ( $R^2=.29$ ,  $F(1,36)=14.43$ ,  $p<.001$ ) had an Adjusted  $R^2$  of .27, informing that 27% of the variance in EL E2 EOC scores was explained by the TELPAS Composite score (Table 4.6).

**Table 4.6**  
**Predictors of E2 Achievement by TELPAS Composite**

Predictors	B	SE B	$\beta$	p	F	R <sup>2</sup>	Adj R <sup>2</sup>
TC	178.73	47.06	.54**	.000	14.43	.29	.27

Note. Adj R<sup>2</sup>= adjusted R<sup>2</sup>; TC= TELPAS Composite.

\* p < .05. \*\* p < .01.

For the second test, I unpacked the composite and ran the four TELPAS domain scores, all together, as four independent variables. The dependent variable was the students' E2 scores. This model (R<sup>2</sup>=.43, F (4,33)=6.29, p<.001) had an Adjusted R<sup>2</sup> of .43, informing that over 40% of the variance in E2 scale scores are being accounted for by the 4 independent variables in combination (Table 4.7), whereas only 8-36% of the variance was accounted for by any of the independent variables individually. The data also indicated that among the TELPAS domains, writing was statistically significant and was the best among the group at explaining the variance in EL E2 scores. In short, TELPAS Writing is a good predictor of EL E2 achievement.

That TELPAS reading, listening and speaking were not statistically significant indicate these variables are not good predictors of E2 achievement. They had weak coefficients and anemic values across the board. However, the tolerance value for reading, listening, and speaking, was above .20 each, which indicated that, while not significant, the variables nonetheless belonged in the study.

TELPAS writing, meanwhile, emerged head and shoulders above the others with a higher beta ( $\beta$ = .54, p< .05), informing that the contribution of TELPAS Writing in predicting E2 achievement is much greater than that of the other domains. Further, within the model, the semi partial correlation value (Part= .36) indicated that the unique contribution of writing, independent

of the other domains, was moderate and the others were small, or worse. Table 4.7 summarizes the results of the regression analyses.

**Table 4.7**  
**Predictors of E2 Achievement by TELPAS Domain**

Predictors	B	SE B	$\beta$	p	R <sup>2</sup>	Adj R <sup>2</sup>	Part	Tolerance
Model Summary					.43	.36		
TR	18.63	30.27	.09	.543			.08	.89
TW	170.86	63.06	.54*	.011			.36	.43
TL	-70.44	87.46	-.21	.426			-1.0	.25
TSP	76.19	67.43	.31	.267			.15	.23

Note. Adj R<sup>2</sup>= adjusted R<sup>2</sup>; Part= semi partial correlation; TR= TELPAS Reading; TW= TELPAS Writing; TL= TELPAS Listening; TSP= TELPAS Speaking.

\* p < .05.

Finally, given these results, it was logical to isolate TELPAS Writing and then pit it against TELPAS Composite to determine the best predictor of EL E2 achievement. After separate regression tests for each, I compared the outcomes. For each regression test the dependent variable was E2 and the independent was TELPAS Writing and TELPAS Composite, alone, respectively.

The reader may recall from above that TELPAS Writing was determined to be statistically significant in the previous analysis, but in this instance, when run as the only independent variable, the metrics for TELPAS Writing improved (TW R<sup>2</sup>=.41, F(1,36)= 24.59, p<.000). As mentioned earlier, TELPAS Composite was statistically significant (TC R<sup>2</sup>=.29, F(1,36)= 14.43, p<.000). When these results are compared head to head, between TELPAS Composite and TELPAS Writing, TELPAS Writing arises as the superior predictor, with a stronger beta (.64 versus .54) and a beefier adjusted R<sup>2</sup> (.39 versus .27).

Further, while the standardized beta coefficient,  $\beta$ , is the general *go-to* for comparison,

in this case the unstandardized coefficients are more interesting. Students' E2 scores went up roughly 202 points for every 1 unit increase on TELPAS Writing and only 179 points for every 1 unit increase on TELPAS Composite. The point being and in conclusion, a head to head analysis indicated that TELPAS Writing is the best predictor of EL E2 achievement, outperforming TELPAS Composite on every favorable value and coefficient—as well as those of all other contenders, across all domains. Table 4.8 summarizes the head to head result.

**Table 4.8**  
**TELPAS Composite as a Predictor of E2 Achievement**

Predictors	B	SE B	$\beta$	p	F	R <sup>2</sup>	Adj R <sup>2</sup>
TC	178.73	47.06	.54**	.000	14.43	.29	.27
TW	201.87	40.71	.64**	.000	24.59	.41	.39

Note. Adj R<sup>2</sup>= adjusted R<sup>2</sup>; TC= TELPAS Composite; TW= TELPAS Writing.

\* p < .05. \*\* p < .01.

### Summary of Chapter IV

From the results of the statistical tests used, the study established a consistent and predictable relationship between limited English proficiency and needing to apply SB 149 to graduate. Further, ELs rated Beginner or Intermediate on TELPAS Composite were very unlikely to graduate without the help of the legislation, and ELs rated Advanced or Advanced High by teachers on TELPAS Writing were very likely graduate without SB 149. Finally, all students who applied SB 149 to graduate, regardless of language proficiency, needed the legislation because they failed the English 2 End of Course Exam.

## Chapter V: Summary and Discussion

### Review of Previous Chapters

This paper has been an exploration of three core themes regarding ELs, which I may reduce, in closing, to *power*, *plight*, and *punctuation*. With these themes, developed from the literature I reviewed in chapter two in response to the problem I stated in chapter one, I have explored *power* from the agency afforded to an individual with the commencement of language, where language is constantly bursting into our heads from a void of nothingness and emotion, and how one's proficiency with the language will define and govern one's life. Regarding *plight*, I have explored changes in federal and state law and policy with ELs after generations of marginalization under a near century long educational hegemony of English-only classrooms. And with respect to *punctuation* I have explored the recent, rapid, and unexpected shift in state norms on high stakes testing when SB 149 burst through the previous equilibrium that had held tight for decades under the old testing regime in Texas, a punctuation which occurred without public demand, changing the rules on high school graduation in favor of students just days before the graduation ceremonies that were scheduled for the Class of 2015.

Using a combination of descriptive and inferential techniques, I sought to further understand the challenges of English Learners needing SB 149 to graduate in Texas and glean the extent of the benefit for them under this legislation. (For those readers who have either skimmed or skipped the first four chapters, SB 149 established the option for students who fail one or two End of Course exams in Texas to still graduate with their class after a review from their campus' Individual Graduation Committee.) I also explored predictors for the EOC E2 exam results, where TELPAS Writing, as rated by classroom teachers, appeared to be a strong predictor because it rose above the other predictors in my statistical tests. In this final chapter, I

discuss the descriptive statistics from chapter three and the inferential output from chapter four and strive to reconcile these data together with the literature I reviewed in chapter two, adding my own interpretations, as well, in the discussion.

In chapter one I introduced the key concepts I used to frame the study and to develop the research questions, including the concepts of LEP and ELs, how fast the group is growing in the United States, and how far behind the group is academically— in fact ELs perform behind *all* other student groups, including special education. I described the big picture, how most parents of ELs in Texas did not graduate college and most EL children will not either— and too many won't even graduate high school, likely resulting in a continuation of multi-generational poverty.

Reviewing chapter one, I introduced the Texas End of Course Exams (EOCs), the state tests required for high school graduation, and identified how they produce a troublesome achievement gap that separates English Learners' performance from native, English-speaking peers. A key point in the chapter was that in the four core content areas in Texas high schools, the statewide achievement gap between ELs and natives varied, precipitously, between 25 and 50 percentage points for first-time test takers, depending on the EOC. In light of this, early in the chapter I pledged a study that would focus on the endgame for ELs, high school graduation, where hypothesized in my study was that SB 149 would provide needed relief and even benefit ELs more than it did other students, regardless whether the Texas legislature had intentions for ELs or not when SB 149 passed in May of 2015.

This was important because other than this study there is no literature to be found from the research community on SB 149. No researcher to date has examined what is truly the most sweeping reform with high stakes testing in Texas history, SB 149. This lack of research is

surprising, given how many ELs there are in Texas and how sweeping the policy change was in its extent. If for no other reason than it is the first to tell the tale, my study is significant research.

Also with chapter one, what I stated near the end of the chapter, in the limitations section, was that my greatest challenge for the study was dealing with the small sample size. Case studies tend to have small sample sizes, and there are problems associated with the methods I used, linear regression, with small sample sizes, namely normality. Ideally with regression methods used for studies, larger sample sizes increase power and decrease estimation error, ensuring normality and making for a better study. The best remedy I could find for managing a small sample size was to achieve a balance by generating a sample “large enough to provide sufficient power while allowing for the ability to actually gather the sample” (Wilson, 2007).

Poring over and re-checking, I am confident my study achieved Wilson’s balance and realized sufficient power. But I admit it was close. The standard rule of thumb with multiple linear regression is that you will have at least 10 data per explanatory variable (Adam Bujang, 2017), which, for this study, would be 40 or more subjects when running regression with the four TELPAS domains as explanatory variables in the study. It turned out there were 38 EL subjects in the study, just shy of the 40 recommended by the rule. My sample size, therefore, was a squeaker, but further critical analysis from the post hoc tests I conducted to double check for normality produced evidence that gave assurance that the study was reliable despite the challenge of the small sample size.

In chapter two I used the literature review to underpin my claim from chapter one that SB 149 benefitted ELs more than others. My approach was both time tested and simple: produce a clearly stated claim and underpin it with a review of literature that will ratify the claim. Hence, with my claim being that ELs benefitted from SB 149 more than others, I began my literature

review with a focus on what initiates the entire conversation— language proficiency. Through my review of literature I wove in and out of the three main pillars of philosophy: epistemology, ontology, and ethics. Guided by Bourdieu, Foucault, Chomsky, Skinner, Aristotle, Wittgenstein, Saussure, Plato, Hobbes, and many others in spirit, to build my case that an actor's degree of language proficiency, his/her control of and ease with language, being central to ontology and human expression, central to logic and order, is what empowers ultimately and provides a resulting and exclusive degree of functionality to the actor. In this way language grants *ability* to an individual to form unique epistemologies, from which one's degree of language proficiency will determine the magnitude of the actor's agency within and legacy throughout his/her society— in terms of his/her skill, relationships, operant functions, renown, and political and/or capital gains, among many other qualities. With sufficient command of language, all fields of inquiry become open to the actor's refinement and the boundaries of right and wrong, ethics, are negotiated by the expressions from language.

Show me someone who speaks a language perfectly, or at least better than all others, and I will show you a person with high status and sizable material wealth in their society. This applies with any language— the language of hip hop music, for example, or other arts, of wall street, hedge funds, the language of law and politics, and medicine, the language of science and binary code, the language of *any* profession or concern, once mastered, generally in English in these times, will produce a tremendous return. Indeed, those in a society who are the most skilled with the group's common language will be the ones most successful in the society.

I made the case for the converse, as well, in chapter two. The reader may recall from the Wittgenstein quote, *the limits of my language are the limits of my world*, meaning deficits in language proficiency bring deficits in nearly all other dimensions of life, for any of us, and by

definition, for ELs. Deficits in language proficiency ultimately accrue, leaving incomplete circuits that are required for full human expression. As the deficits with language compound, the Aristotelian, most favored life moves further out of reach. Critical things like wisdom, knowledge, assets and advantages are compromised, as well as personal well-being. I made the case over and over through my review of literature, that a command of language allows for executive functions, including *power* and influence necessary to maximize one's capital, one's self-interest, one's personal utility.

And because language is *the* central utility in all discourse, the varying degrees of language proficiency among the people in a population create discrepancies within the society, resulting in power differentials. In the review of literature I focused on these discrepancies and power differentials, when I transitioned the discussion from *power* resultant of language to that which I characterized as the overall *plight* of ELs, who by definition are limited in their capacity with the dominant language. I reminded all readers in chapter two that until 1965 the landscape under policy and law was adversarial for those lacking English proficiency in the United States, and the residue of at least a century of such adversarial policy malingered for decades thereafter, where even today the microns of suspect policy are detectible, with EL advocates crying foul when their opponents chant in unison *build that wall*— in English.

Still another dimension with my review of literature to ratify my claim that SB 149 made a difference with the plight of ELs came later in the chapter when I reminded, or revealed, that it was not public opinion but the U.S. courts that prompted real changes in law to provide English learners basic rights and access to education. In demonstrating the effectiveness of the policy process, I highlighted nearly every major case involving ELs, and I pointed out that eventually, reluctantly, legislatures followed— both state and federal.

Moving on, my review of the literature transitioned a third time to a theme of *punctuation* and focused on what is at the heart of the study— SB 149 and how my theoretical framework Punctuated Equilibrium Theory (PET), explained how SB 149 punctuated the equilibrium for EL students in Texas and established new norms with respect to high school graduation. Using the cited literature from the work of Eldredge & Gould, Colgan, Cohen, and others, I made the case that it was SB 149 from the Texas legislature, not the courts this time, that had punctuated the equilibrium of the long standing high stakes testing requirement in Texas. SB 149, as legislation, retooled the rules that had been stacked against ELs from the get-go with high stakes testing in the state. SB 149 toppled the rigid, uncompromising regime of the previous policy on required testing, a policy that had held tight for decades.

In ratifying my claim that SB 149 benefitted ELs more than others, I explained the surprise nature of this legislation and how it provided an outlet for English learners to achieve high school graduation, where they had come up short on a state test or two prior to the legislation. This was a fresh topic. SB 149 laid out a brand new idea to afford an option to the student to pass three out of the five state EOCs and still graduate, which had not been possible for thousands of ELs prior to the legislation, and I noticed that no one was studying it. My hunch was that the impact of SB 149 would be immense for ELs and bring greater benefit for them than it would to others.

In chapter three I undertook the challenge of defining the specific methods that I would use to test my hunch and find out if SB 149 benefitted ELs. In the third chapter I described the statistical methods I used to investigate the extent to which English learners benefited from the new legislation. I established how I was able to isolate several variables in the data that as a practitioner I was positioned uniquely to observe, data that were available to me only relating to

the English language proficiency of the ELs in the study. With a mindset rooted in post-positivism, I tethered the appropriate statistical methods to my research questions for analyses of the most interesting relationships I was observing, amid the many combinations of independent and dependent variables that emanated from data on the Class of 2016 at my target school.

I articulated within the third chapter that the underlying rationale for the methods I used was a belief that there was something going on here in Texas with ELs and SB 149. From the careful wording of the research questions, I probed for whether the legislation worked better for ELs than it did for other students, and whether a particular EOC stood out when students, any student, either EL or English proficient, applied the legislation in order to graduate. In addition, I explored the natural connection between SB 149 and TELPAS. As I touched on in the first two chapters, decades ago Texas unveiled a system for assessing the English language proficiency of its ELs, TELPAS, and I used TELPAS data from HSX to assess whether TELPAS was any good at projecting sufficient readiness for an EL student to succeed on his/her EOC English 2 (E2) exam.

Regarding the techniques I used, my analyses were quantitative. I used raw counts, percentages, means, tabulations and cross-tabulations, with the dependent variables limited primarily to LEP/NON-LEP (English Learners and native speakers) and IGC/NON-IGC (those applying SB 149 to graduate and those who did not need it) combinations of students, including TELPAS scores for LEP students. I kept the main focus on *all* students' EOC E2 scores as the dependent variable I was most interested in because it was the most retested subject among the EOCs. For the first two research questions these variables were assessed with a series of Chi-square tests for independence, and for the third research question I used multiple linear

regression, including a step-wise regression to obtain the results. With fresh output in hand from the statistical software, SPSS, I continued on to chapter four.

In the fourth chapter I organized my explanations of the results of my statistical tests to follow from each of the hypotheses that had unfolded naturally out of each research question. I provided a full description, albeit terse in the sum, of the results from each of my statistical tests. Chapter four was brief, obviously, and yet the implications were powerful. The results I discussed in the chapter not only affirmed the accuracy of my hunch with the predictions I had conceived earlier in the study, but the Chi-square and linear regression models made the case clear-cut that being an English learner matters on high stakes tests when it comes to End of Course Exams in Texas.

Indeed, EL students in the study benefitted most from SB 149, increasing their graduation rate by over forty percent. The data also indicated that about a third of the ELs in the study would not have graduated without SB 149. Also noted was that English proficient students were far more likely to graduate *without* the assistance of SB 149. Finally, the results I discussed in chapter four showed that EL students relied on SB 149 to graduate at nearly *five times* the rate of English proficient students. There was also a major surprise: *all* IGC students failed E2. Another interesting outcome was the data output made the case that while TELPAS overall is very good for assessing English language proficiency, it was the teacher-based portion of the TELPAS instrument that “knew” best, i.e. where teachers rated an EL Advanced High on TELPAS Writing, the student nearly always passed his or her EOC tests, *all* of his/her EOC tests.

This final chapter is about unpacking the case study as a whole. In the pages that remain I will continue my elaboration of the three core themes in the study— *power*, *plight*, and *punctuation*. Governed by these themes, my case study produced three clear takeaways on SB

149 and ELs at an urban high school in central Texas. First, the English Learners in the study benefitted more than other students from Individual Graduation Committees, much more, in fact, than did English proficient students. Second, all students who graduated under SB 149, surprisingly not just ELs, applied this new legislation to graduate because they had failed over and over again since their sophomore year their English 2 End of Course Exam. And finally, specific to EL students, their TELPAS Writing was the best predictor of academic success at HSX on the English 2 End of Course Exam. (Without doubt, E2 is the toughest challenge for ELs in Texas high schools.) In the remaining sections, I will discuss the implications I have observed from the study for policy and practice in the state, beginning with a discussion of the findings.

### **Discussion of the Findings**

Addressing the first research question, data from the study indicated that being LEP mattered when SB 149 was applied in order to graduate HSX in 2016. Previous research has shown that success in public schooling involves mastering the complex features of English and mastery of its writing system, its particular academic conventions, as well as demonstrating proficiency in reading, speaking, and listening (Scarcella, 2003). In the HSX cohort, a student's language proficiency had a statistically significant, medium effect on failing one or more of the state's EOCs, which necessitated SB 149 to graduate. This finding was expected given that previous research indicated former ELs significantly outperform current ELs in both reading and mathematics with large effect sizes of 1.07 and 0.86, respectively (Ardasheva, Tretter, & Kinny, 2011). That the effect of being EL was medium as observed in this study. The effect was neither as large as I expected nor as large as in other studies. The reader will note, however, that

the 38 ELs in the study are not representative of all ELs. Rather the ELs in this study are representative of the finishers of the endurance race to graduation. These were the ELs who did not wash out, the ones who persevered over four years and graduated proudly in June 2016.

I must restate that the effect size came back medium because the analysis was limited to the ELs who actually graduated. Not included in the calculus of the effect size were all the ELs who dared try but did not learn enough English in time to finish, and they faded out of the study, which is not uncommon (Cummings, 2009), thereby underrepresenting, perhaps misrepresenting, darkly, the true effect size of limited English proficiency on graduating high school. I would clarify, therefore, that the effect size derived from the study was medium, yes, but medium *with an asterisk*. Attached to the asterisk should be a descriptor that would properly accentuate the word “medium.”

To bring the point home, imagine yourself with your present intellect and present knowledge of the basic core contents, imagine at this very moment in time as you read this, I am talking about your present knowledge on math and science, reading and writing, and history, but imagine a catch that you are in Tanzania, and you, my reader, are 17 years old and you want to graduate high school in your new country. But to do so, you will be assessed in the core content areas with a series of high stakes tests written in, not English, which is your heritage language and something you are pretty good at, but in Swahili, the official language of Tanzania. Are you more likely to graduate in that brine or wash out of high school altogether, no matter how many times you take the tests in Swahili? It is quite likely that you would become a statistic and contribute data that show that irrespective of grade levels, EL students (or SL in our case) are much less likely than native students to score at or above a state’s proficient level (Fry, 2008).

To further understand this point, the 38 ELs in my study began as freshmen at HSX in the fall of 2012, not knowing English well, many hardly at all, and the best of the others didn't know English like a native. They, the 38 EL students who landed in this study, began in a freshman class that originally hosted over 100 ELs in HSX's general education program, 106 to be precise. Had more ELs stayed in the race through their senior year and leaned on SB 149 to graduate, it is probable that the effect size of English language proficiency would have been observed as being large, or very large, certainly larger than the medium effect size observed between the variables of LEP\*IGC in the study. No matter how you unpack it at the target school, it is astonishing that of the 106 freshmen ELs who started in 2012, only 38 crossed the finish line in 2016 and made it into the study.

Findings in previous research suggest that although differences in individual student characteristics partially explain variation in English language proficiency and academic achievement, the particular schools that ELs attend matter more (Carhill, Suárez-Orozco, & Pérez, 2008). From this research are we to blame HSX for the collapse from 106 ELs to 38 or celebrate that 38 is more than in other schools? (HSX is ahead of the others. It has earned distinctions for having the highest graduation rate in the district.) From other research the more likely factor to consider, rather than the school itself, is that the acquisition of second language cognitive academic proficiency does not occur quickly but is a lengthy developmental process that takes a significant number of years (V. Collier & Thomas, 1989).

Regardless, nearly two thirds of the ELs who started their high school journey at HSX did not finish with their peers. In my review of literature I made the point from Saussure that command of language is command of concepts, and one's limits with language will hinder conceptualization, which would explain that basically only a third of the ELs who started HSX

were able to complete their high school journey— and even more telling, nearly *a third of them* needed SB 149 to graduate. Without SB 149, it is stunning that only 27 of the original 106 ELs at HSX would have graduated (25%). This realization brings home the point that the effect of language proficiency on academic outcomes is stunning (Reardon & Galindo, 2009), and returning to my central point, the effect of English language proficiency with ELs needing assistance from SB 149 to graduate is likely much larger than the medium effect as determined by this study.

Which begs the question: where did all the ELs go? My case study does not provide an answer. The study offers limited insight on the fallout—we know from the study, for example, that 46% of the freshmen class (all students, not just ELs) that started HSX did not finish there for the 2016 cohort, and perhaps did not finish at all. We know that of the 302 seniors on record, nearly 20% withdrew at some point in their senior year, wandering off for the reasons noted in chapter three, where they moved to one or another school, or out of state, etc.

As a practitioner at large, urban high schools, I have observed that students of all categories come and go weekly, if not daily, throughout the school year— but at a rate, more often than not, that keeps *total enrollment* fairly static. Therefore, the end numbers in the study are just that, end numbers. They do not decipher or decode the individual lives from the original mix. The study may only state that there were 106 ELs in the building when the cohort was formed and 38 in the same building upon graduation. Narrowing my point to the ELs in their senior year at HSX, for the Class of 2016 their senior year started with 74 ELs on record. 38 graduated.

The obvious question is where do they go? Where did all the other ELs from the original 106 go? Previous research has questioned whether assessments used by states in determining

students' proficiencies and outcomes for ELs are valid (Young et al., 2008), and the tracking mechanisms built into NCLB are supposed to address these questions in part (Lazarín, 2006). But the overall question boils down to which among the *original ELs in the building* remained to be included in the final mix of 38 seniors listed on the graduation program? There are too many *wherefore art thou* questions, but the most important one for the study— *what is the true effect of language proficiency on academic outcomes for ELs*—these concerns, when the numbers are parsed, linger a bit, unanswered and exceed the scope of my study.

The bottom line is that ELs withered within their class more than all other groups. The precipitous decline in ELs during their marathon from *eager freshmen* to becoming *proud graduates*, the decline in the ranks is indisputable and affirms the warning from Michele Foucault in chapter two, from my review of literature, that language is the central utility in all discourse, resulting in power differentials where, in this case of HSX, the winners graduated, and the losers withered along the way. It is difficult to know the precise metrics because it is impossible to control for the instability of the EL population, a recurrent enrolling and withdrawing of students with varying proficiencies, albeit some, in small number, stay in the building but exit the LEP program when they are determined to have reached English proficiency (Ardasheva et al., 2011).

Whether coming or going, LEP students withered as a group at HSX a rate of 64%. They went from 106 freshmen to 38 graduates. For perspective, this may be compared to a 39% attrition rate for non-LEP students (281 non-LEP freshmen to 172 non-LEP graduates at HSX), which is in keeping with previous research findings that suggest linguistic barriers and long-term EL designation contribute to the observed achievement gaps. Not just at HSX, the differences in the “stringency of state reclassification criteria” influence the reported size of the

LEP and non-LEP achievement gaps between states (Kim & Herman, 2009).

I will conclude my discussion of research question one by pointing out that the discrepancy between the rate of attrition of ELs and the rate of attrition of natives affirm a central tenet of the study— when applying SB 149 to graduate HSX, the effect of English language proficiency was significant. Other studies had similar results, where previous findings also showed that English proficiency was significantly related to English academic achievement, even for EL students who had been in U.S. schools for 3 years or longer (Mahon, 2006). Clearly from the study ELs benefitted more from SB 149 than natives, and the effect was medium for ELs as calculated. Calculated, again I point out, from the 36% of ELs who both started and finished high school at HSX. This would suggest that the *true effect* of limited English proficiency, were it calculated from all the ELs that started HSX, and not calculated exclusively by those who actually finished HSX, *that* effect size of English language proficiency on graduation (with or without SB 149) would be much larger than the data in the study indicate.

Research question two was a different venture, one that required me to explore the specific content areas where ELs benefitted from SB 149. At conception, research question two was a well-thought question. With it I hypothesized there would be significant variance between EL and English proficient students on any particular End of Course Exam for which the students applied the SB 149 exemption to graduate. But once the data were unpacked, they told a simple and terse tale, one unsuited for statistical analyses. The data were too sour, statistically, even to make lemonade, because there was no variance. None. Not a sprinkle, not a tinkle. Neither dot nor scintilla of variance existed between the two main groups, EL and English proficient. Instead, a veritable tsunami of unilateral, uniform, single file data subsumed both groups. The surprise I had was a basket of identical *citrons déplaisants* from both ELs and natives.

When I framed the second research question in the proposal stage, I anticipated finding benefit from SB 149 to ELs and I anticipated the benefit would exceed what the legislation afforded the native, English proficient students (the essence of research question one). But I had no idea *where* the benefit would land, meaning among the 5 EOCs. In this regard, *most assuredly*, I thought, there would be observable differences, variance, between student groups, involving the “ten paths to failure,” that I demonstrated to exist mathematically, earlier in chapter one, for graduating IGC under SB 149— and most certainly these paths and patterns would be observably different between ELs and the native, English proficient students.

I was curious to know because there is no evidence that SB 149, as legislation, was coined with ELs in mind, which made me genuinely curious to find, in the mix of EOCs, *where* the benefit would unpack itself. Again, there are five EOCs in Texas— Algebra, Biology, English 1 & 2 and U.S. History. For research question two I anticipated I would discover interesting distinctions in the passing rates between the exams, for example EL\*IGC students perhaps relied on SB 149 for one combination for graduation, while the English proficient IGC students perhaps landed in some other quadrant, a path quite different from ELs— and perhaps I could test these differences for significance on *where* the boost from SB 149 landed and thereby bring attention to the differences. Hence, Research Question 2. Stated another way, I was probing, earnestly, for significant variance between EL and English proficient IGC students on the End of Course Exams for which the students had failed and thus applied SB 149 to graduate.

To that end, I anticipated discernable *clusters* of benefit, as I will call them, for both LEP and non-LEP students, and these clusters of benefit would be revelatory or would at least approach something of a pattern, a rational distribution, rooted in and determined by the student’s proficiency with the English language. The English 2 (E2) EOC, of course, was an

obvious candidate for where SB 149 would provide disproportionate benefit to LEP students. But what about biology, algebra, or especially, one might speculate, U.S. History? Such differences, once statistically affirmed for significance, had potential implications for policy and practice! So yes, I imagined, of course there would be multiple, obvious and comparable clusters of benefit, pillars of relief for ELs from SB 149 that would differ from natives, across the EOC spectrum! It was only a question of *how tall* each pillar, how concentrated would each cluster be, exactly *where*, and for *which* exams!? I was excited.

I anticipated shades of Pierre Bourdieu would arise, a la from my review of the literature, and manifest in this area of analysis. I expected the results would affirm Bourdieu's notion that language should be viewed not only as a means of communication but also as a medium of power through which individuals pursue their own interests and *display* their *practical competence* (Bourdieu, 1984). But instead of pillars of *practical competence* that were formed by a spectrum of individual *display*, I instead found collective incompetence. My excitement for Bourdieu and pillars of competencies and the extent of their heights was quickly extinguished. The data in the study rebuked all aspirations I had for the second research question, because, simply put, everybody failed E2. Variance is tough to come by when that happens.

Indeed, *both major* groups, LEP and native, which comprised *all* IGC students (those who used SB 149 to graduate) passed nearly all the rest of their EOCs— Algebra, Biology, and U.S. History, and they passed these others at essentially the same rate, almost exactly so. But then there was E2 scores, standing apart and quite separate from the others, and they were stunning. It turned out that E2 was the *epic fail* for all IGC students, LEP and NON-LEP alike, at an astonishing, perfect fail rate of 100%. Again, there is not a lot to talk about when that happens.

What this meant for Research Question 2 was there were no discrepancies in the data or patterns for me to analyze with statistical tests. What began as a good research question turned out to have a very obvious answer. The answer to the second research question is simple: *everybody* who graduated IGC under SB 149 failed E2. Everybody passed everything else. Or more precisely, everybody who applied SB 149 to graduate failed E2, and everybody for the most part passed all the other EOCs, EL and native alike. I was disappointed at the emergent simplicity of it all. Even so, there are useful takeaways from Research Question 2.

To begin, the second research question delivered a win for ELs. The bad news regarding the mechanics of the study was good news for ELs. I realized that the soup-mix of *everybody who graduated IGC failed E2* there was, in fact, a key ingredient, something new and interesting— ELs were passing all their *other* EOCs. Had significant variance between the groups had manifested, yes it would have made for a more interesting answer to the second research question, but greater variance between the two groups would most assuredly be at the expense of ELs. Therefore, the upside of no variance in the data meant ELs held their own in the overall arena of EOCs, performing almost as well (eventually) as the native, English proficient peers, in Algebra, Biology, and U.S. History. This finding from the second research question should encourage perseverance for ELs; it also begs for more sustained, theory-driven research to examine the longitudinal development of ELs under IGC and ELs across the K-12 span (Genesee, Lindholm-Leary, Saunders, & Christian, 2005).

That everyone else who graduated IGC had the same problem as ELs who graduated IGC, namely the E2 EOC, was truly a surprise with this study. As a practitioner of educational administration and speaking for practitioners as a group, we live from test assessment to test assessment, with first timers and re-timers lining up, again and again, for the same testing

routine, under the same perennial testing regime, season unto season. And with the students constantly retesting, year-round, the kids and cohorts soon mix, LEP and non-LEP blur, new and old testers alike are together in the grand batch of re-testers, the *aspiring ones*.

As these aspiring students march into and through their senior year, the majority of them by now have passed their EOCs at some point, all of their EOCs, and in the waning months, weeks, or days before graduation, we practitioners turn to the few who have still not yet made it, and we plan for applying SB 149 and graduating them IGC, if they qualify. At that point the unit of analysis becomes the *individual student*. We are no longer thinking in groups. We practitioners tend not to conduct post hoc data studies on our IGC students as a monitored group, and lacking that information and insight, through our myopia we sustain the illusion that all EOCs matter equally, as we are trained, and further, when time becomes short before graduation, data trends become moot. We are now fighting for and rooting for individual students, case by case. The short answer, therefore, at least at HSX for Research Question 2, was simple: *everybody* IGC fails E2. It would be interesting to know how that holds up across the state.

From the discussion thus far, what emerges and becomes clear is that SB 149 helps students graduate, and it helps ELs more than others. Further, in plain terms, as your school's E2 scores go, so goes your school's accountability rating— and, this is where the results from research question three are instructive. TELPAS can help you with accountability in your school by assessing your school's trajectory on E2. The data on the third research question advised that it is in a school's interest to narrow the focus to the students' teacher-rated writing scores with TELPAS to assess 1) which ELs should need to apply SB 149 to graduate, and 2) the school's trajectory with accountability. Both are predicated on the outcome of the final E2 EOC the students take. The study showed that TELPAS works in this regard, and I am pleased

the study is able to contribute to best practice and give practitioners confidence in the utility from TELPAS Writing for projecting E2 and accountability scores.

It is interesting when I look back at the review of literature in chapter two. In my description of a punctuated equilibrium event, I focused on the work of Baumgartner & Jones, where they talked about policy having periods of stability and incremental drift that were punctuated suddenly by large-scale, substantial policy changes. And here with my study we had SB 149, a dramatic policy change that punctuated the testing equilibrium successfully and instantly occupied the attention of every senior class in Texas. In the literature review I had pledged to 1) overlap punctuated equilibrium theory with changes in Texas public education and changes in Texas' long-standing testing regime; and 2) analyze these events in a real-time, the present day; while 3) prophesizing a new direction given the new equilibrium. All of this comes home to roost in this chapter.

In hindsight I see that while students, parents, and educators are caught up in the EOCs, no one is looking up—and there TELPAS was, right above us, all along. For more than 15 years, TELPAS holds up like the north star in the bright night sky. As a system, TELPAS has been with us throughout the era of EOCs in Texas, though it was not designed with EOCs in mind. In fact, TELPAS precedes the EOCs by more than a decade, and to present day TELPAS remains separate from—and to a degree at odds with—the EOCs on the state's testing calendar. TELPAS and EOCs were never intended to intersect; they were each built regardless of the other. To provide evidence that TELPAS and EOCs are two worlds apart, TELPAS is run by a separate company, Pearson Education, and the EOCs are run by Educational Testing Services (ETS).

Previously undiscovered by the research community, and what the result has demonstrated

from research question three in the study, is that TELPAS can predict EL E2 performance consistently and reliably— and E2 is endgame, the make or break EOC for ELs applying SB 149 to graduate IGC. Put it all together and the metrics of TELPAS/E2/IGC, under SB 149, are the endgame for school accountability. For a system created to meet the requirements from No Child Left Behind Act of 2001 (NCLB) and assess every EL every year, kinder through 12, in four language domains, listening, speaking, reading, and writing, TELPAS produces legitimate academic utility for knowing their English proficiency and whether a student is Beginner (little or no English ability), Intermediate (limited ability), Advanced (grade appropriate ability with support) or Advanced High (grade appropriate with minimal support). The underpinning descriptors of TELPAS are critical because the assessed domains encompass precisely the skills needed to meet state standard on the E2 exam.

Of the four TELPAS domains, this study identified TELPAS Writing as the strongest predictor, followed by the TELPAS Composite score. The writing score, it should be emphasized, is determined by classroom teachers who have rated their ELs and then transmit their ratings directly to the state. The reader is reminded from Table 5 in the previous chapter, that the variables with TELPAS and E2 were positively correlated, meaning that as the TELPAS Writing scores increased from one individual to another, the E2 EOC scores tended to increase, and the same was true for TELPAS Composite to a lesser extent. Further, the reader may recall from results of the regression analyses in chapter four, that TELPAS Writing in isolation explained about 40% of the variance in the students' E2 EOC scores and the TELPAS Composite score explained about 30% of the variance in the E2 EOC scores, a difference of 10%.

And here is where I discuss the impact of outliers, intentional outliers as I identify them. The 10% difference between Writing and Composite scores was because the strength of the model for TELPAS Composite was compromised by outliers, and TELPAS Writing was *not* compromised by outliers. Digging into the specifics, out of the 27 ELs in the study, with those who passed E2, there were four outliers in the group who scored *low* on TELPAS Composite (2.23 on average, which is Intermediate), who had high E2 scores (over 3800 on average, where 3750 is passing). These *same students* averaged 3.5 on TELPAS Writing (landing in the middle between Advanced and Advanced High), which is “about right” for the associated E2 scaled score they earned. The impact of the outliers, therefore, is that these low-TELPAS scoring students were scoring an eye-popping 229 points above minimum state standard for passing E2. And the consequence from the outliers is they deflated the size of the correlation between the TELPAS composite score and the E2 scaled score. Now keep in mind with these outliers that from TELPAS, their Composite proficiency level was only Intermediate, just a step up from Beginner. A first response might be, well, good for them! A student who barely knows English has conquered E2. A miracle.

More sleuthing was required, however, on this observed mystery miracle. Further analysis of the data revealed not a miracle, but that the outliers *clearly cheated*— but not in the typical manner of cheating. These students did not profit from the cheating and they broke no rules. However, given the inexplicable discrepancy between their low TELPAS Composite and their high E2 scores, the cheating appears not to have been on the E2 EOC. Clearly the E2 test was the *most* critical exam in these students’ academic lives to date, and the study suggested the cheating occurred on the students’ TELPAS assessment, the *least* critical exam at this point of their academic lives— and their cheating was perfectly legal and well within the rules of the test.

To understand this odd, counterintuitive allegation and believe the outliers cheated within the rules, the reader is prompted to recall that the composite score is an amalgamation of the four individual TELPAS domains, weighted by the state in a manner that privileges reading over the other domains. Remember also that the reading test is provided online by Pearson Education. With this noted, it is interesting to discover that the four student outliers all scored a 1, the lowest possible domain score, on their online reading test, Beginner, *as assessed by Pearson*. These same students on their TELPAS Writing domain scored 3 or 4, which is Advanced and Advanced High, respectively, *as assessed by teachers*. The most plausible, common sense explanation is the students cheated in *reverse*, where the students blasted through their Pearson online reading test, clicking answers willy-nilly, in an effort to get it over with. I dare say it is *impossible* that had the outlier students taken the Pearson Reading test faithfully, that they would have scored a legitimate 1, the lowest score possible on their online TELPAS Reading test, and then just *two weeks later* sail through and slam dunk their far more rigorous E2 exam, which is exactly what these outliers did and on the most challenging test on record in their lives. Thus, I may only conclude that the students cheated— but they cheated with clean hands. In classic teenage *touché!* style they digitally ditched their online TELPAS Reading test and left the testing center as quickly as possible. While this chicanery had no effect on their lives, it did distort the data with TELPAS Composite scores at HSX and thereby also put a mess in my data by altering the expected correlation between TELPAS Composite and E2 scale scores for research question three.

Now as to why this would happen is pretty simple. By my conjecture, by their senior year these students are suffering from what I characterize as *TELPAS Fatigue*. TELPAS, after all, is a perennial spring ritual, an annual rite for every EL in Texas, from the first semester they begin

public education in the state. My estimation is that the four outliers in the study had taken TELPAS at least a half dozen years in a row, and there was nothing of value left for them in the Pearson reading test, especially for a senior in his/her final semester and just two and a half months away from graduation. Also, there is no penalty for surreptitiously clicking oneself willy-nilly out of the test— other than getting a returned score of 1, Beginner, a score which would arrive in the mail well after graduation.

I believe this contributed to why the results from research question three had crowned *TELPAS Writing* as the strongest predictor of the TELPAS domains for projecting outcomes on the E2 EOC. Contrast the behavior of the outliers with TELPAS with what happens when the writing assessment is proctored by invested teachers. For TELPAS Writing, the teacher of record collects writing sample after sample from their students over the course of days or weeks, until the student produces 5 best-effort writing samples to form a ratable collection. The collection, these 5 samples, are then carefully verified by a different teacher, and then rated by the teacher of record or even by a third teacher before the rating is entered directly to the state. In other words, it is difficult to cheat or reverse cheat on TELPAS Writing— if not impossible. On TELPAS Writing, your teacher will catch you giving anything less than your best. And it is no surprise, therefore, that the result from research question three was so firm about how Writing stood out in the four TELPAS domains and was the strongest predictor of E2 outcomes.

In summary and for closure on discussion of my final research question, question three, because of how the TELPAS Composite score originates and because of how it is susceptible to teenage whim (compared to how the TELPAS Writing score is not) we may only conclude that TELPAS Writing is the best of the four domains, the one that will produce the most valid, reliable, and useful assessment of a student's English proficiency. That this rating comes from

the student's own individual classroom *teacher* will be an important point to draw back to in my next two sections on implications for policy and practice.

### **Implications for Policy**

By the authority of the state, SB 149 stipulated that a high school diploma may be awarded to a student who has passed three out of the state's five EOC exams and has met the requirements of the campus' Individual Graduation Committee. The data confirm that SB 149 is good policy, especially for ELs. In 2016, for example, 74% of IGC assigned students were ELs (Texas Education Agency, 2019a). In 2017, 82% of IGC assigned students were ELs (Texas Education Agency, 2019b). But the policy from SB 149 has been effective for *all* students. In 2018 alone, for example, about 28,000 public high school seniors still needed to pass a state exam and got a lifeline from Texas legislators with SB 149 (Swaby, 2017). As of Spring 2019, the difference between graduation and washing out continues to be SB 149 for tens of thousands of Texas high school seniors (Texas Education Agency, 2019d).

The policy is also closing in on proportionality among student groups in the state with respect to high school graduation. In particular, SB 149 has balanced the ledger for Latino, LEP, and Economically disadvantaged students. Since it was passed by the 84th Texas Legislature in 2015, the number of graduates who are Latino and LEP (Latino and LEP students comprise about 53% of all enrolled students) has increased to roughly 49 percent of the state's total graduates, which is proportionate to white students who account for about 28% of total enrollment (Texas Education Agency, 2019c). Interesting, however, is that while Latino and LEP students are graduating proportionately, *overall*, to their white peers, Latino and LEP students apply SB 149 *disproportionately* to do so. To wit, 68 percent of all IGC/SB 149 graduates are

Latino and LEP (Rodriguez, 2017) and about 10% are white (Texas Education Agency, 2019b). Similarly disproportionate, economically disadvantaged students comprise about 40 percent of all Texas graduates, but they are 75 percent of IGC graduates.

Proponents of SB 149 who generally disavow high stakes testing, say it has kept students in school because they know they can still graduate even if they cannot pass all the state tests (Taboada, 2016). In the HSX district, for example, the number of seniors who graduated IGC in 2016 under SB 149 grew 35 percent (Taboada, 2016). Critics of the legislation counter that the state is padding its graduation numbers with SB 149 by handing diplomas to students who lack content knowledge. But the critics are disorganized, few in number, and quiet in their criticism—likely because the statistics around the policy are so favorable to students and families. Nonetheless, criticism persists. There are a few in the state who believe allowing students alternate pathways to graduation lowers the standards for all students. A registered Texas Tribune reader commented recently, “Unbelievable, only in Texas would you push for ignorance and mediocrity” (Swaby, 2017). But where are the data to support this reader’s conclusion? As we enter 2019, all accounts are that the Texas economy is strong, college enrollment is up, the demand for labor is high, and unemployment is at historic lows in the state.

From my research, there is no consistent, organized criticism of the policy. Policy groups, employers, and even those in higher education have laid off SB 149. None are complaining that Texas is becoming mediocre because SB 149 allows students who failed their E2 EOC to graduate high school. Even the conservative think tanks, like the Texas Public Policy Foundation, have not come out against SB 149. Yet surprisingly, the Texas legislature has been reluctant to make permanent the changes from SB 149. Presently, SB 149 is scheduled to sunset in 2019, ahead of the Class of 2020.

The legislation must be made permanent in time for these students and those that follow. The bill was originally scheduled to sunset in 2017 but was re-upped for two more years in time for the class of 2018. The subsequent legislation, SB 463, extended that date to September 1, 2019. With the SB 463 vote, the extension sailed through the Texas Senate 29-2 and passed the House 145-0. Going forward, I predict SB 149 may be extended a third time, *again* 2 years, and the extension will pass overwhelmingly, with another round of near unanimous voting, and in time for the class of 2020 — but I also predict that the policy will *not* be made permanent, *again*. I urge the Texas legislature to stop kicking the can down a 2-year road over and over so that it can assess the political winds before voting. Rather, it is time to do what is right by students and make the firm decision that the legislation be permanent.

Permanent implementation of the policy would be more efficient. Once permanent, students, parents, schools, and districts would know where they stand and not be subject to the 2-year cycle of politics in the Texas legislature. Imagine as a parent wondering if your younger child might not graduate without the policy when your older child did. Let me be plain: if the bill is bad policy, there would be evidence brought forth by now, which no one is offering. Meanwhile let's declare that three out of five EOCs is fine for high school graduation, make SB 149 permanent, and allow our students to move on with real life.

### **Implications for Practice**

Moving the discussion to implications for practice, it has been decades in Texas since teachers were lone scorekeepers and gatekeepers on graduation in public schools. In those days, teachers assigned a course grade as the final grade of record for the student. In present times, in this era of state and federal accountability, the traditional individual classroom teacher takes a

back seat to high stakes state testing. In present times, for the core content subjects in Texas, meeting standard on a state test in grades 3, 5, 8, and 12 will determine a student's success and promotion, more so than the teacher's course grade— i.e. a student is routinely promoted if they fail a core class compared to if they fail a state test.

Putting teachers in the back seat is new, but what is not new is organized, large scale assessment by grade level, statewide or nationally. For more than a *century* in public schools, state and nationwide testing of students was common, conducted to inform policy makers and stakeholders (typically in that order) on the progress of our students as a whole in the state, the nation, by group, and so on. The difference we face today is in bygone days those scores did not intrude on individual students lives at their local school, or jeopardize their public school graduation. However, the evolution in state and federal education policy has instituted a new norm since NCLB in 2001, where in order for a state to receive federal funds, the state is charged with the role of scorekeeper and gatekeeper, never mind so much the teacher's course grade. The result in Texas is a marginalization of teachers, where the state EOC scores trump the final course grade from the teacher. The student can pass the teacher's course, but if they fail the state exam, they might not graduate. In Texas, the EOC scale scores are the final word on school and student success at various grade levels, and in some cases, the state, and even districts, are using EOC scores to measure teacher effectiveness, as well.

This study shakes these new rules up a bit. This study favors the old-time, bygone days of teacher practice and makes the case that teacher assessments are valid, equal and better, in some ways (reverse cheating), to what comes out of scaled scores on state tests, tests that in some instances are brewed up with in-house competencies as assessed by the testing company's home-cooked algorithm. This study rejects that approach and makes the case for teachers and

their old-fashioned, low-tech grades and their better judgement, which together are reliable measures, better than the algorithms, particularly when assessing EL English proficiency and evaluating EL students' over-all academic readiness to enter our communities, our society.

To the point, the results of this study demonstrated that when assessing and assigning ratings for language proficiency, *teacher-generated* data were superior, quantitatively, to the data generated from the state's contracted testing company. Yet even with quantitative evidence on something that teachers are obviously good at, TELPAS, in practice the state recently moved another portion of the TELPAS assessment away from teachers. This hegemony occurred without regard for the needs of school districts and without public debate or discourse. That a change of this scale just "happened" is suggestive that it was the suspect work of a handful of insiders in Texas. This is what I know happened: in 2018, the state outsourced two more of the four TELPAS domains away from teachers and gave it to a testing company, an exchange that cost millions of dollars.

To provide a reference point for the reader, the reader must know that in the early days of TELPAS and in the early grades, teachers rated *all* domains. (Remember there are four of domains in TELPAS— reading, writing, listening, and speaking.) In the early and mid-2000s, teachers routinely collaborated with their peers for TELPAS and used rubrics provided by the state. Back then, teachers used the Texas observation protocols (TOPs) to rate *their own* students in each domain. The results of their work produced the same ratings that are used today for describing English proficiency in Texas— Beginner, Intermediate, Advanced, or Advanced High. The teachers reported these scores directly to the state, and the scores became the official record of the state for a calendar year.

Compare that era, now, with the spring of the 2018 in Texas, when teachers were instructed

to rate *only* TELPAS Writing (the hegemon has pushed teachers from four domains to one) because in 2018 the state spent millions to Pearson Education to outsource TELPAS Listening and Speaking to go along with the already outsourced to Pearson Reading domain. With this change, two more of the four language proficiency domains were taken away from teachers in favor of the testing company at the expense of millions of dollars. Since TELPAS and SB 149 go hand in hand, the *why* of it is sketchy, as I will show, but the result of the unannounced change is Texas has quietly stripped *three fourths* of TELPAS away from teachers to a testing company, Pearson. As of 2019, only TELPAS Writing is trusted to Texas teachers.

When TELPAS Writing becomes the final piece taken from teachers, the last teacher-based assessment will be replaced, not by a standardized test, but by an algorithm from the testing company. It may sound odd for a student's writing to be scored by another algorithm, but that future is already here. Wait, an algorithm can be used to assess writing? The answer is yes. The college entrance TSI writing test is currently assessed by algorithm in Texas. (TSI is an online college readiness exam required for admission by many community colleges and post-secondary institutions in Texas. The TSI Writing test is scored *instantly* by an algorithm, and the student knows the result of his/her TSI Writing test before they leave the testing room, the instant the student clicks "submit.")

The irony for implications for practice is my study determined that TELPAS Writing, as rated by old fashion teachers, emerged as the most reliable and consistent predictor of success for an EL on his/her E2 EOC. Therefore, I argue that the teacher based assessment was stronger precisely because of the *human* element. That is to say, when teachers gather up students' writing samples that the teacher has collected over the course of days or weeks during the TELPAS testing window, and rates them— in the course of doing so they, the teachers, are

drawing from a personal investment in and an authentic relationship with the students they are assessing, such that the teacher will easily discern if the student failed to give a best effort, or if the content was copied from a source, or if two students in the same class submitted the same written response, and so on, all of which, by the way, can defeat a machine. Teacher based, relationship based, human screening mechanisms, which is the basis of my argument, do not exist when a machine assesses online multiple choice tests or when a student submits an essay to an algorithm, or the student submits a recording of his/her natural speaking voice and manner of enunciation to an algorithm, as required of ELs in Texas beginning in 2018 when TELPAS Listening and Speaking was stripped away from teachers.

As I make the case for the human element, I become aware that school administrators, myself included, have abetted the coup of the algorithms; we are complicit in usurping assessment from teachers. We administrators in practice give license to the ostensible narrative of the state that *teachers* are the weak link and the algorithm is superior— this abetting becomes obvious when we look to TELPAS *Reading* scores, which many practicing administrators deem to be the only useful data from TELPAS.

I have observed for many years in my practice in four districts that administrators use the reading domain score reflexively, that is the TELPAS Reading score, alone, in isolation from the other TELPAS domains, as the data by which we base student scheduling, student program selection, how we assign interventions, how we strategize for the EOCs, and so on. In administrative practice, from my observation, we fall into the logic trap that using the reading score is the *go-to* score with TELPAS because the reading score is determined by a standardized online test, independent of teachers. In other words, we too by our administrative practice declare that teachers are the weak link! I confess until this study I assumed that the

standardized reading test score must be the superior measure from TELPAS compared to ratings from *teachers*.

I speculate that we administrators have contributed to the myth that if student data are not generated from scaled scores on a standardized test, the data cannot be trusted. If I am correct, then administrators have been indoctrinated, in the same manner as have politicians and key policy makers. All of us are trained by political mechanisms, interest groups, industry aspirations, public opinion, and institutional systems, to give blind trust to standardized scores as a default position to take above all other data, to the point where we reject, reflexively, data that come from the *imperfections of teachers*.

My eyes opened when the data in this study informed otherwise, beginning with my results in chapter four, which made a case for teachers. Going back to HSX, and predicting success for ELs on EOC E2, the teacher ratings for TELPAS Writing, it turned out, provided the *only* significant contribution from the four TELPAS domains, the other three of which are in the pocket of a testing company and are insignificant statistically to the extent that, as the reader may recall from chapter three, a stepwise regression that I ran, flatly rejected the other three domains. We pay the testing company millions of dollars from tax money for that data. The study also exposed that the administratively beloved TELPAS Reading is also almost irrelevant statistically, such that in many cases the effects of TELPAS Reading on E2 EOC scores could not be reliably distinguished from the effects of chance. The study made it clear; if you are wanting to know how your ELs will do on E2, look at TELPAS Writing, bona fide teacher rated, because the study proved that with teacher-rated TELAPS Writing, you have a predictor you can count on, unlike scores from the testing company in the other domains.

Additionally, the study demonstrated, by the case of the obvious outliers (and other

suspected outliers I refrained from commenting on), that seasoned ELs, fatigued by the annual TELPAS ritual in Spring and being corralled every March and plopped in front of a computer to take another online reading test, a test that does not count for a grade or toward graduation, while their English proficient peers are still in class and doing other things and having more fun presumably, these ELs, in a most human manner, “blow off” the TELPAS online reading test, restore in their own way an equilibrium, tit for tat, you might say, and impose their teenage home skillet, frontier justice, administered from an intentional, random blast of haphazard clicks, enough to race through Pearson Education’s online TELPAS reading test to mercifully get to the end of the thing and all the dull screens and dreary passages in the 50-plus question exam—and what again is the penalty for doing so—detention? Should their parents ground them? There is no serious consequence, nor should there be, and thus what I am describing here is that what comes of it is *reverse cheating*, which entails clicking one’s way out of a no-count test, a crime that is impossible to police and more likely than not, quite common among seasoned ELs on TELPAS Reading—a phenomena this study has identified by original, groundbreaking research that warrants further review for additional implications, with both policy and practice.

Meanwhile, as I stated earlier, it is hard to cheat on teacher rated TELPAS Writing—simply because teachers are involved. For TELPAS Writing, the student is responding within the proximity of his/her teacher, in class, to a writing to a prompt, a prompt designed by the teacher and proctored under the supervision of the teacher who *knows* the student. By mid-March, the window for TELPAS assessment on the state’s testing calendar, the teacher may have worked with the student for about 130 school days. If there are any shenanigans with the students’ writing samples, they may be detected, ensuring the validity and integrity of a

TELPAS Writing collection and the ratings assigned, something an algorithm cannot guard against.

But the state went the opposite direction. During the time this study was conducted, in fact in the midst of this study making a case for the competence of teachers, the state outsourced more assessment to its testing company. With no public input or discussion with stakeholders who are in the trenches, either at the campus or the central office level (we were truly shocked as a leadership team in my top-tier district, as were colleagues I checked in with across the state) it was announced suddenly in early 2018 that TELPAS Listening and Speaking for 2018 and beyond were being outsourced from teachers to an algorithm from Pearson Education, a change that would require two more online tests from each EL student. (There are about one million ELs in Texas, meaning about 2 million more standardized tests were brokered from this decision.)

No one I know at the school or district level heard a whisper that this quick, quiet switch was coming. I can only repeat the suppositions I heard that at least one of two factors were in play to explain this policy change: 1) the nefarious *follow the money*, the common default theory, a conspiracy theory, typically made when people lack information or lack a full understanding of a topic, where the new policy is often attributed to the efforts of lobbyists working in the shadows on behalf of a corporation to manipulate bad actors employed by the state— or 2) a general distrust among state policy makers of teachers and their skill with assessment. Neither of these suppositions are either kind or optimistic, but these were the two leading, informal suppositions, I heard from practitioners in their effort to guess why the state paid millions more dollars to outsource more of TELPAS when *no one* had been complaining that teachers were getting Listening and Speaking ratings wrong in the first place.

This study cannot speak to the conspiracy talk, but the study takes issue with and challenges the latter supposition that teacher assessment cannot be trusted. In fact, I reject any *more machine* and *less teacher* model in TELPAS. That line of thinking produces what I term a *supposition of distrust*, which perhaps arose from the same unfortunate myths that fueled NCLB— that teachers are the problem that a bunch of money spent on state testing can fix.

In the case of TELPAS the state spent \$14 million for 2018 to make the change with TELPAS to a more machine, less teacher model. The change happened without providing a public arena to consider evidence or justification to warrant the expense (Morath, 2017). My most unkind analysis for *why* the change happened is understandable, given that the change simply *happened*. The state even failed to forewarn or provide explanatory or anticipatory documentation *inside* education circles, e.g. there was no press release from the Texas Education Agency to districts, nor announcement nor bulletin to school boards and superintendents, no timeline for implementation for teachers or anything of that kind was offered.

After carefully researching government and media sources, including budgets, and databases, talking to my sources at central office, scanning for any trace of publicly available information on just the basics of why the state outsourced Listening and Speaking on TELPAS from teachers to a paid-for algorithm, I had nothing. My questions were simple: what is the benefit to students? Who proposed the change? What was the rationale for the change? Who selected Pearson Education? What were the criteria for the contract? What would it cost? Careful combing for the answers turned up no clues to explain the change. Again, the outsourcing simply happened. Big money was spent.

The unusual outsourcing, therefore, amounted to a second major punctuated equilibrium

event discovered and identified within the course of this study. Consistent with the PET theory, the change came out of the ether in the manner I described in chapter two. Before elaborating further, I must pause to make the point that because my good faith efforts came up empty for determining why \$14 million in education funds were spent on this change, the public interest warrants additional research on what was behind this contract and what benefit is there to students for \$14 million. The whole thing is a head scratcher that belongs in the *Mysteries and Secrets* vault in what is otherwise a fairly transparent state.

The only clues, somewhat ironically, come from the money trail between the Texas Education Agency and the Texas House for the state budget (Morath, 2017). When Pearson had the EOCs, they collected \$82.4 million on their last contract until it ended in FY 2015. In the Summary of Recommendations, the State Testing Program Vendor Amounts for FY 2017 show the new numbers and that Pearson received just \$14.4 million for TELPAS, STAAR Alternate 2, and TAKS. Bear in mind that STAAR Alternate 2 and TAKS are small change. Together, statewide, these tests amount to fewer than 50K student tests a year. Meanwhile, TELPAS is a prize. Nearly 1 million ELs a year, and growing, are assessed by TELPAS (Texas Education Agency, 2018b). It stands to reason, therefore, that the overwhelming majority of the \$14.4 million budgeted for Pearson in FY 2017 was for TELPAS and providing an online platform for rating a million ELs.. Therefore, if you are following the money, TELPAS is where the money was.

The quick result when Pearson picked up TELPAS Listening and Speaking for 2018 and beyond is that Pearson went from administering 1 million online tests to ELs to 3 million online tests, tripling their business on ELs, just like that, in the blink of the proverbial budget eye— the only catch was TELPAS had to be taken away from teachers to do so, and I believe this

explains the silence. Since there is no evidence at all that teachers were doing a bad job with TELPAS Listening and Speaking, at least not bad enough to spend \$14 million to take it away from them, it had to go through quietly. The contracted change in TELPAS in the interest of Pearson was done in a manner so quiet that no practitioner that I know in my rather extensive circles saw it coming— and let this study be the first to inform the reader that the quick and secret switch on assessment away from Texas’ teachers to England’s testing company, to the tune of \$14 million for TELPAS, did not go well at all for Pearson. In fact, it was a disaster.

The impact experienced in public schools for this last minute, effective immediately, stealth policy change to outsource 2 million additional TELPAS tests to Pearson, at least for HSX, the target school of this case study, was quite frankly horrible for the students. It took the better part of a calendar year for Pearson to release the scores. It may be another year or more before the impact may be fully assessed and researchers are able to parse out whether the disastrous result of the change was a first year anomaly, normal with transition on state testing platforms, or if the testing company will be hoisted by their own petard. For reference in making this point, we go back to HSX in the spring of 2018, when our EL students engaged the new platform from Pearson in live practice on the two new online tests for rating their TELPAS Listening and Speaking. They were given headsets and told to sit in front of the machine and talk to it; the recordings were sent to Pearson. The results, the actual ratings that came back from the new testing platform, were intended to provide an empirical ratification of the policy change and potentially justify the switch to an algorithm and the most curious, further elimination of teachers from rating TELPAS. In reality, the scores arrived October 25, 2018, *seven months after* the 2018 TELPAS assessment. Imagine being the parents of the children who were removed from the classroom and forced to sit for hours to engage the new online tests

from Pearson, which required them to be recorded speaking in English, followed by having to take their high stakes EOCs only days after their TELPAS, and then receive their scores seven months later. In TELPAS circles, it was a statewide debacle.

A huge implication here for policy and practice for ELs, and in roundabout fashion for SB 149, is that prior to the outsourcing to the testing company, the annual score reports from the annual March TELPAS administration were sent to parents in late May, without fail. Having the data in May was also critical for the school leadership because the school is required to use the May data to exit qualifying students from the LEP program at the end of the year, in June. The TELPAS scores also warn students, parents, and school practitioners that more interventions are needed in preparation for the students' EOCs. However, due to the statewide delay on TELPAS Listening and Speaking scores, a 7 months late reporting fiasco in 2018, HSX and schools in the region were instructed to use the prior year's TELPAS data for making critical decisions and exiting students, which did not do justice by the students. We paid millions for this?

A calendar year is a long time when it comes to improving one's English proficiency, and leaving HSX with no choice but to use *last year's data* was bad policy, bad practice. The impact at HSX of using year old data meant *zero* students exited LEP status in 2018. (Six ELs were exited the year before.) Another major implication for policy and practice from the outsourcing to the testing company is once the scores arrived, what were practitioners to do with the state's new, preposterous data? "Preposterous" is the correct term, and here is why: the new algorithm rated only 20 EL students Advanced High in Speaking for 2018 (5%); 186 were rated Advanced High in speaking by teachers the year before (51%). Also ridiculous, only 72 students were rated Advanced High at HSX by the algorithm in Listening in 2018 (23%), while 225 were rated Advanced High in listening by teachers the year before (61%). The data were so

delayed and preposterous that we were instructed not to use it at HSX.

These data should bring a hearty round of applause for teachers. As the results of the study and the data in chapter four indicated, it is my belief that if TELPAS, the entire instrument, was left to teachers, as it used to be in Texas, the scores from the March 2018 TELPAS administration would have been on record, on the shelf, valid, reliable and actionable the very same month! And the data would have made sense! Nothing preposterous would have happened, and it would *not* have taken the better part of a calendar year to get the results. In fact, for all the years before the outsourcing of listening and speaking to the testing company, the turnaround time from the time of the TELPAS assessment to having usable data in hand was about a month— and, more importantly, everybody in the building agreed with the ratings.

To recap my points on the debacle statewide of switching from teacher based assessment to algorithm based assessment with the 2018 TELPAS administration, 1) with the delay in score reporting, schools had no choice but to rely on 2017 data for exiting and scheduling; 2) from the outset, the state gave no indication when the scores would be released which left schools in a limbo; 3) when scores finally began to trickle out, 7 months after the fact, students were given mixed messages, e.g. *we have the scores, but not all the scores*; or *we have your scores, but not the official reports*, or worse—*your English proficiency has dropped precipitously and we have now placed you in a class with beginners*; 4) many students were remanded from Advanced High to Beginner status; 5) parents were not given a written explanation for the stunning drop in their children’s scores; and 6) districts received no guidance from the Texas Education Agency on talking points for how or when we were to explain the debacle to parents, students, and staff. The official scores just appeared one day— October 25, 2018. With no explanation. For a test given in March. The bottom line is the results from the algorithm were not fair to

anybody, and certainly not worth the \$14,403,687 paid to Pearson Education for the 2018 test administrations.

No, the results from this study make it plain that TELPAS ratings are best left to teachers. During the time the study was conducted, it was quite by chance that the state went the opposite direction. I realize I am obligated to provide a balanced discussion, and a fair discussion requires exploration of a counter argument, which in this instance would be an argument in support of the state and the algorithm for assessing students' English proficiency. The counter argument would likely be that the rationale for taking TELPAS away from teachers in favor of a testing company's algorithms is the problem of path dependency with teachers, and the algorithm is the better path in the long term for both students and the state. From this perspective, the debacle in 2018 is only a blip on the screen, a bump in the road, a rough start that will be forgotten as quickly as if it never happened once it is accepted that the algorithm model is a means to a greater end.

This argument calls for emancipating TELPAS from the inconsistencies of teachers and holding course with the testing company and its algorithms, despite the rough start. And that is what we are doing in Texas, at least for the moment. This bold new direction in the state is underway again at the time of this writing, Spring 2019, and more than a million ELs in Texas are again talking to a machine. With more time and patience and money, says the counter argument, the testing company may eventually develop a superior model. The logic with the counter argument is that each year and with more data, software engineers at the testing company can develop a self-learning model that may accurately, consistently, and instantly rate the English proficiency levels of all ELs in Texas, freeing up more time for teachers and administrators to focus on the needs of these students in the classroom.

At the heart of the counter argument is how machine learning works. The machine learns from old data, and with each year that it takes on new data, the machine fuses both, the old and new data, and comes up with a better model, on the spot, each time out. From each year, each cycle, and every repetition, a new, more refined, *self-refining* model is automatically generated by machine learning, again and again. A brand new and improved model results with each iteration, improved from the millions of tests that come with every test administration. The counterargument has it that the algorithm will inevitably run champion over anything teachers can do because the algorithm is a dynamic model compared to the static model from teachers.

This analysis is from the strand of the counter argument that claims a teacher-based model is a static model and makes no sense in the long run for assessing English proficiency of students. The problem for leaving TELPAS with teachers is that the teacher model is a *hopelessly* static model— teachers rate their first writing collection, their first listener, or speaker, a certain way, and their ratings slip and begin to vary by increments as more cases come in, and soon the drift will produce not so subtle discrepancies within the teacher's *own* ratings that compound as more cases are engaged (never mind compared to other teachers, which is another big problem). Due to fatigue, human error, or other factors, like mood or appetite, any distraction at the moment of rating— in the end the students will not be rated consistently by the teacher, and what is more, different teachers will arrive at different ratings.

On the other hand, machine assessment via machine learning, is superior, *or very soon will be*. Given the opportunity, the machine delivers an indefatigable, dynamic, constantly improving model, rather than the static, moody model from the caprice of teachers. At a certain point a human simply cannot deal with another drop from the rough rude sea of input, spilt endlessly from the giant bucket of a million ELs and TELPAS. And with that comes the parting

shot from the owners of the counter argument: Having to assign ratings statewide, including more than 12 million domain scores each year (and counting), let's face it, teachers cannot handle it— but the machine can, effortlessly.

Now that I have given attention to both sides of the algorithm argument, I bring to a close this section on *implications for practice* with my refrain that the results from research question three in this study make a strong case *for* teachers with respect to TELPAS Writing. The results also make a strong case *against* Pearson's TELPAS Reading and the validity of those scores. In addition to practice, it is also clear regarding implications for *policy* that even with what we know of statewide results from the 2018 TELPAS administration, those who have power and control in the state, whoever they are (I cannot source the origin of the outsourcing), favor machines and algorithms over teachers for assessing the English Proficiency of ELs in Texas, at least on Listening and Speaking and Reading. I am not sure why they are holding back on the last domain, TELPAS Writing, but I imagine it will also be taken from teachers in time and will cost many more millions of dollars.

Those in control have faith ostensibly in the inevitability, strength, efficiency, power, and alacrity of machine learning— this is the pith and pitch of any counter argument against teachers. That said, the data from the study compel me to steadfastly reject any outsourcing and argue strongly *for* teachers. In conclusion of my overall analysis with respect to implications for educational policy and practice in my beloved state of Texas, I leave the reader with half a dozen grand questions to ponder: 1) In the post-SB 149 decline of the testing regime in Texas, where SB 149 tamped down state testing from 15 to 5 to 3 high school EOCs required for graduation, are we nonetheless witnessing in real time the rise of a *new* testing regime in Texas, that of the algorithm? 2) Who should control student assessment, teachers or machines? 3) If the

2019 round of testing by machine brings another debacle with the data on TELPAS, should the state reconsider the contract? 4) If TELPAS, the instrument for assessing the entirely *human* functions of listening, speaking, reading, and writing, has fallen to the machines, will this cement a new regime that will grow and reign in all grade levels and across all student assessments? 5) If the machines are as good at doing what they are promised to do, what is the future of teaching and learning in public education? 6) Will a new equilibrium be established that cannot be punctuated once the machines take over?

### **Concluding Remarks**

This study was dedicated to exploring the hand in hand factors that arise with issues of power, plight, and punctuation in policy on ELs, EOCs, SB 149, and TELPAS in real life at a large, urban high school in Texas. For nearly three decades prior to SB 149, Texas required students to pass all state tests in order to graduate high school. From the earliest days of that policy, if the student failed even one portion of the state's ever-changing testing suite of the year, the student did not graduate. Within this context a testing regime evolved, and it grew in size and scope in Texas over decades, fueled by hundreds of millions of dollars, to a point where once fully formed at the acme of the realm, the regime announced a 2011-2012 testing calendar that would include a battery of 32 STAAR and EOC tests for the year, administered across K-12 , with 15 EOCs slated for the high schools and 17 STAAR tests on deck for grades 3-8. That same year, the regime also raised the passing standards on students, and demanded more online testing capabilities from its testing company, at an expense of almost half a billion dollars that was awarded to Pearson Education of England for deliverables.

The genesis for the testing regime itself and its half billion dollars per contract began in

Texas out of the work of lobbyists, interest groups, policy makers and testing companies who associated with the idea that state testing would improve public education and prompt teachers to work harder (Gardiner Murphy, 2017). The idea was administrators and teachers would use data from the state tests to improve instructional delivery and increase the rigor in lessons. Students would learn more, and a culture would evolve where students and teachers would themselves *embrace* the challenges of the state tests.

In the early days of the regime, the early 1990s, the first wave of high stakes state testing rolled through. They came about from a perceived decline in academic standards and a “nation at risk,” mostly attributed to bad teaching and low standards. By the 2011-2012 school year, Texas was leading the charge, leading the nation with how wide and far its testing realm had grown. In the name of 2001’s NCLB and from its (perceived) public mandate, each year the testing regime in the state demanded that teachers and students keep working harder for the test, practice more, focus more resources to meet ever climbing state standards on an ever widening array of high stakes tests, drilling over and over in the classroom for these tests, including specialized tutoring, Saturday classes, and even *local credit only* courses that were built into the master schedule to reteach the test to re-testers who had failed along the way. What grew from a handful of state tests in the 1990s became 32 STAAR and EOC exams at the zenith of the regime.

Enter SB 149. Seemingly out of nowhere, in the late spring of 2015 the hegemony, the rigidity and inflexibility of state testing crumbled, instantly. Pearson was fired summarily, and the regime withered on the spot. Suddenly, with SB 149 only 3 of 5 EOCs would be required for graduation, far from the 15 initially dreamed of by the regime. In fact, SB 149 sailed into law because the alarm had rung loudly. As a consequence of the maturation of the state’s testing

policy and the simultaneous rising standards under the regime, entering the spring of 2015 twenty or more thousand Texas students had failed at least one of the state's tests (EOCs) and were doubtful to graduate. At the last moment, the white knight appeared.

Gallant as it was, SB 149 as the noble knight was not called to arms and sent to slay the regime's dragon based upon an outcry from the kingdom's people. There was no din of angry masses among parents and students. Instead SB 149 was handled quietly by conservative Texas legislators, beginning with Senator Seliger of District 31, who saw ahead of time that the storm was coming. He saw the looming reality of tens of thousands of students not graduating in 2015 if he didn't do something. The problem was not just with the class of 2015, but all kinds of students would likely fail at least one EOC in subsequent years thereafter. It is a terrible thing for students and their families, not graduating after completing 13 years of school, but that is what was about to unfold. Never mind all the other challenges with the mean tides of immigration, poverty and the colorful shifts in the demographic composition of the student population in Texas, with dozens of new languages and caravans of cultures crisscrossing the state. Those were not the focus. The looming nightmare was the simple specter of tens of thousands of students of all stripes coming up short, including average white students. Seliger saw clearly this trajectory for the state under the rigid, old policy on state testing, and he knew something would have to give.

The coming storm was also not just a state issue. Seliger and his peers within the legislature were also acutely aware of the coming effect on federal accountability rankings once dozens of thousands of casualties on graduation piled up year after year in the state. And thus it happened: a genuine punctuated equilibrium event. In a nick of time, just before whom the bell would toll in 2015, SB 149 burst into existence, only weeks ahead of graduation. You might say

SB 149 sprang from a legislative void, seemingly in the same manner that physicists talk about quantum fluctuations which allow a universe to spontaneously form from itself from absolutely nothing, and SB 149 likewise provided a big bang of instant, mass relief to tens of thousands of students, especially ELs. In a fascinating, unprecedented, historic event, SB 149 shattered on a dime 30 years of educational policy in Texas of putting state testing ahead of graduation.

Regarding ELs within the legislation, SB 149 relaxed the linkages just enough between state policy on testing and high school graduation to become surmountable for most ELs that make it to their senior year. This study showed that ELs (those who finish) will pass the biology, algebra, and even US History EOCs at about the same rate as their English proficient peers. But the English 2 End of Course Exam, for ELs— in fact, for every IGC candidate at HSX— is the beastly bear, so much so that if a student is not successful, only SB 149 will save them. In bringing its major transition, from 5 tests to 3,

Oddly, this study is the only research to date on SB 149. There have been many earlier studies on English Learners and high stakes testing policy, but the earlier studies mostly documented correlations regarding how EL performance on standardized tests ultimately affected school accreditation, funding, curricula, programming, retention rates, professional development, and teacher training. What's new here, with this study, is that the evidence and data tell us SB 149 benefitted ELs more than all other student groups combined. The study indicated strongly that the improvement in the graduation rate for ELs since SB 149 was not determined by chance. The data were persuasive that: 1) SB 149 delivered significant help to ELs; 2) the main issue with ELs needing SB 149 to graduate is the student's level of English proficiency; and 3) teachers are fantastic at assessing language proficiency with TELPAS.

English proficiency was the single, most relevant factor driving the observed systematic

differences in performance outcomes between ELs and all other student groups, especially with graduation rates. As measured by TELPAS, the study isolated TELPAS Writing for ELs, as rated by teachers, as the best portent for demonstrating English proficiency on the E2 EOC. The study confirmed that when teachers rate writing, the teacher rating is the most effective among the TELPAS domains for predicting the outcome of the E2 EOC and forecast which students will need to apply SB 149 to graduate. While teachers seem to know best, three out of four of the TELPAS domains are presently assessed by machine. Unintentionally and ironically, this observation was made in 2018, concurrent with the major policy change in Texas regarding TELPAS, which reconfigured the instrument from half machine, half teacher rated, to only one quarter rated by teacher (writing).

It is true that in the midst of writing up this study and working through the EL/EOC/SB 149/IGC/TELPAS connection, I ran smack into the debut of Pearson's algorithm for TELPAS Listening and Speaking. What are the odds of that happening? That while writing up a study that includes TELPAS the state would outsource the rating of Listening and Speaking from teachers and pay \$14 million to their testing company? The results from the study, perhaps serendipitously for ELs, informed that the state made a *big mistake*. The outcome of the study made it plain that stakeholders need the strongest TELPAS model possible. Recent and reliable data on student English proficiency levels allow the school to be nimble with scheduling students, allocating resources, focusing time and effort to push students for a full proficiency level increase each semester or year, and continue to refine and organize resources and interventions until the student reaches advanced high or exits the LEP program.

Instead, data from the TELPAS domains as provided by the testing company were statistically irrelevant in the study. Nonetheless, I concede that when artificial intelligence

develops fully, a machine will likely be as good as teachers at some things, certainly faster. But without the human relationship that teachers and students forge naturally, I reject the argument that a machine will ever be *better* than teachers.

The testing company, however, is prevailing at the moment in Texas. The study has convinced me, and perhaps the reader is persuaded as well, that this may not be in the best interest of students in Texas. There is a fundamental reason why teacher-rated TELPAS Writing data are patently stronger than data from the other domains. As I mentioned before, by the time TELPAS season comes around in Spring Semester, the teacher has spent roughly 25 weeks with the student and a relationship has been forged. Teachers collect writing samples over the course of many days, cajoling, inspiring, demanding more, as only humans can do, and teachers will consistently and reliably reject writing samples they deem are not up to snuff. And their students will produce.

I do not believe that students respond the same way, or produce in the same way, to satisfy a machine, especially in a single sitting, once annually, on demand. In fact, I doubt students ever speak, listen, read or write for a machine in the manner I describe they do routinely for teachers. Keeping TELPAS with teachers, therefore, keeps it human, and what can possibly be more human in the taxonomy of life than growing language proficiency? It is sharing a common language that separates us from both the grunts of animals and the 1s and 0s of binary code, the language of the machines.

In closing, let's be clear that machines are not entirely bad. I recognize that my own study threw out teacher-rated TELPAS Listening and Speaking, along with Pearson's online Reading and kept only teacher rated Writing as the useful domain from TELPAS for predicting E2 scores and who would need SB 149 to graduate. Even so, regarding what is in the best interest

of the state and what is best for policy and practice, I believe returning *all* TELPAS domains, listening, speaking, reading, and writing, to teachers at the end of the day will produce an assessment model for English proficiency in the state that is stronger and more nimble than what a testing company's machine can deliver, at *far less expense*. With the bonus of ownership that comes with keeping TELPAS among we humans, the teacher rated model is the better model for ELs.

Once TELPAS is returned to teachers, the statistical power of the instrument may improve for predicting success on the E2 EOC and better gauge who might need to apply SB 149 to graduate high school in Texas. The study revealed the teacher model needs attention on calibrating Listening and Speaking, an issue I did not explore in detail for the sake of economy and brevity within the chapter. But even so, when it came to comparing the testing company's ratings against teachers' ratings for assessing students' English proficiency, a series of random post hoc comparisons in the study showed teachers ran away with the contest. The testing company was not even close. And because TELPAS Writing as rated by teachers was so reliable at predicting success with E2 and for determining the need for SB 149, I must conclude by arguing that the state's recent and ongoing experiment with spending millions on an algorithm for TELPAS is a disaster. The study validated teacher ratings and disavowed the testing company's ratings.

My final comment is regarding the study itself. Ideally the study would provide a grand theory of unification with the major fronts I have covered on SB 149— policy and practice, ELs and graduation, TELPAS and E2, man and machine. Perhaps it falls short of this ideal, but my study is the best we have so far to describe these factors in real time and make note of their orbital interactions and apogees in our present universe. It is my sincere hope that this study is

useful to the reader and is a trusted resource when considering future policy for ELs, vendor contracts, and testing practices in Texas.

## Appendix A: STAAR EOC Standards 2016

### State of Texas Assessments of Academic Readiness (STAAR) Standards for Cohort 2016

Measure	Test Questions	Minimum Raw Score (Passing)	Minimum Scale Score (Passing)	Raw Score Range	Scale Score Range
Algebra EOC	54 multiple choice	20	3500	0 – 54	1397 - 6110
Biology EOC	54 multiple choice	20	3500	0 – 54	1325 - 6195
English 1 EOC	92 multiple choice, 2 short answer, 1 prompt	47	3750	0 – 92	1005 - 7065
English 2 EOC	92 multiple choice, 2 short answer, 1 prompt	50	3750	0 – 92	845 - 6999
US History EOC	68 multiple choice	28	3500	0 – 68	922 - 6451

Source: [https://tea.texas.gov/Student\\_Testing\\_and\\_Accountability/Testing/State\\_of\\_Texas\\_Assessments\\_of\\_Academic\\_Readiness\\_\(STAAR\)/STAAR\\_Raw\\_Score\\_Conversion\\_Tables\\_for\\_2015-2016/](https://tea.texas.gov/Student_Testing_and_Accountability/Testing/State_of_Texas_Assessments_of_Academic_Readiness_(STAAR)/STAAR_Raw_Score_Conversion_Tables_for_2015-2016/)

## **Appendix B: Chronology Of Media Coverage**

Punctuation Equilibrium Theory (PET) conceives that over time policy moves slowly, but also experiences sudden punctuations, characterized by sweeping, rapid changes in policy. Explanations for these punctuations have centered on institutional friction and disproportionate information processing (Flink, 2017). What made SB 149 an uncommon PET event was that the institutional friction was invisible to the public, and the information processing through the media was disproportionately non-existent. The testing regime in Texas had graduation tethered to success on all state exams, with no organized public friction working to the contrary. And regarding disproportionate information processing, the media in Texas and the coverage of SB 149 were entirely reactive, completely after the fact, and not proactive in the least in describing the legislation or predicting its passage.

In May of 2015, just as high schools were ordering caps and gowns and printing programs for graduation, SB 149 sprinted through the legislature and barreled through Texas public high schools like a full speed, unexpected freight train, swooshing through town in the dead of night. SB 149 had unstoppable momentum, and schools had no choice but to implement immediately as the Destination-Graduation train roared through, which added tens of thousands of new names to the program for the Texas Class of 2015. It seemed to those it affected as if the tracks for this train had been laid just that afternoon. How it came to be that SB 149 passed so rapidly, and how it became law “effective immediately,” and how the surprise of it all stunned educators, students and parents, was captured aptly in a feature story from the Mesquite News, May 13, 2015,

Because of the bill’s late passage, Rideout [associate superintendent for instruction, Mesquite ISD] said the district must act quickly - about 10 days - to take advantage and give seniors who qualify the chance to graduate. “Right now we are kind of in a pickle. If we don’t do it,

you can imagine how we can be skewered for not providing the opportunity,” she said (Green, May 13, 2015).

The reader may detect from this quote that Ms. Rideout and Mesquite ISD were caught off guard by SB 149. Absolutely, and if the reader is unfamiliar with Texas and only learned of SB 149 after the fact, perhaps only from this paper, the following chronology of media coverage may explain why. What is revealed from the media coverage is that the story of SB 149 was not a big one. Very few media outlets did much more than report it as a one-off story and that SB 149 passed or was on its way. Very few media outlets invested in follow-up stories.

My analysis of statewide media coverage on SB 149 includes from the bill’s genesis to the bill’s point of becoming law and of its implementation. The first media report on SB 149 came from the bill’s author’s neck of the woods, a west Texas newspaper, the *Odessa American*. On November 11, 2014, the day after the bill was filed in the Texas Senate, the *Odessa American* was the first to report “some 48,000 students will not graduate from high school this year simply because they cannot pass a high stakes test” (Odessa American (unattributed)), November 11, 2014 #136). It bears noting that the SB 149 portion of the overall story took second billing in the article, second both in headline and in body. The lead in the article was about new construction and renovation projects planned for Odessa in 2015; SB 149 was slipped in somehow, oddly, in the same article, below the fold, second fiddle.

It was not much better on television and over the airwaves. Austin television station KXAN was first to cover SB 149 with an evening story February 19, 2017; San Antonio’s KSAT followed with their broadcast in May. Print media coverage was equally sparse. SB 149 was featured in the *Houston Chronicle* and *Education News* in February, 2015, The *Texas Tribune* covered the story in March, the *American Statesman* in April, and the *Dallas Morning News* in

May. Again for reference, SB 149 was filed November 2014 and signed into law May 2015.

Table B.1 illustrates the distribution of media coverage and how the coverage coincided with events at the Texas capitol.

**Table B.1**  
**Media Coverage Coinciding with Events at the Texas Capital**

<b>Date</b>	<b>Media Source</b>	<b>Platform</b>	<b>Headline</b>	<b>SB 149 Chronology</b>
11/11/2014	Odessa American	Newspaper	Seliger Files Bill Asking For Money To Build In Odessa; Review Of STAAR	Day after SB 149 was filed
2/19/2015	KXAN Austin	Television	Texas Could Let Students Graduate Without Passing STAAR Test	Public hearings
2/20/2015	Houston Chronicle	Newspaper	SB 149 Could Provide Additional Path To High School Graduation	Day after testimony in Committee
2/21/2015	Education News	Online Magazine	Bill Would Allow Texas Students To Graduate Despite Failed Tests	Left pending in committee
3/17/2015	Texas Tribune	Online Newspaper	Bill Creating High School Graduation Panels Passes Texas Senate	Passes the Senate after four amendments
3/26/2015	Daily Tribune (Mount Pleasant, TX)	Newspaper	SB 149 Gets Mixed Reviews Here	House received bill from Senate 3/18
3/29/2015	Midland Reporter Telegram	Newspaper	SB 149 One Of Many Bills That Could Have [Sic] Fix Our System	Remains in House
4/21/2015	Austin American Statesman	Newspaper	Texas House Oks Bill Easing Grad Requirements For High School Seniors	Passed to third reading in House after four amendments
5/7/2015	Coppell Gazette	Newspaper	Coppell ISD Preps For Senate Bill 149	Awaiting Governor's signature

Table B.1 Continued

<b>Date</b>	<b>Media Source</b>	<b>Platform</b>	<b>Headline</b>	<b>SB 149 Chronology</b>
5/11/2015	Dallas Morning News	Newspaper	Abbott Signs Bill Exempting Thousands Of High School Seniors From Graduation Exams	Signed by Governor Abbott; effective immediately
5/11/2015	The News Gram (Eagle Pass)	Newspaper	Relief From Eoc Requirements	Signed by Governor Abbott; effective immediately
5/13/2015	Star Local Media/Mesquite	Online Newspaper	Mesquite ISD Adapts Quickly To SB 149	Implementation
5/14/2015	KSAT San Antonio	Television	New Law Gives Texas High School Seniors ‘Second Chance’ To Graduate	Implementation
5/19/2015	Star Local Media/Celina	Online Newspaper	Celina School Board Adapts Quickly To SB 149	Implementation

In summary, from its genesis, SB 149 punctuated the equilibrium of the state testing regime in Texas, shattering the typical policy process in Texas by passing quickly and skirting the norms of implementation. The passage of SB 149 was an unusual punctuated equilibrium event because the typical requirements of the theory— being centered on institutional friction and disproportionate information processing— were absent. Also SB 149 was atypical of education reforms and initiatives, period, which are usually characterized often by a yearlong introduction, with a well-established rollout and timeline, including training, planning, and budgeting.

SB 149 also ran counter to the norms of media coverage— i.e. it had sparse coverage, almost no follow-up stories, and the media developed miniscule public awareness of what the bill was and when it was coming. The story of SB 149 was basically a news blip for most news media organizations and was not covered at all by many news outlets across the state.

Further, SB 149 was such a surprise that it was not discussed, debated or planned for in school board rooms. A review of board minutes and agendas on *boarddocs.com* and *boardbook.org* for Austin, Dallas, and San Antonio ISDs, respectfully, did not return a single mention of SB 149 prior to its passage. Local school board policies for each of these districts were updated only after, and well after, passage and implementation. From the Texas Association of School Boards, EIF (Legal) was the first boilerplate policy update found, the earliest of which was adopted in Austin ISD in July 2015— meaning the official policy on graduation was established *after* graduation for the Class of 2015.

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