

EMERGENT BILINGUAL STUDENTS WHO BEAT THE ODDS: A STUDY OF
FACTORS RELATED TO ACADEMICALLY SUCCESSFUL STUDENTS
CLASSIFIED AS EBS

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by

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DEDICATION

For my children. Dream, pursue, trust God, and never give up.

ABSTRACT

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This study explored the relationship between Texas Emergent Bilingual (EB) students' participation in an Advanced Placement (AP) exam and four predictor variables at the school district level. One year of archival data from 125 Texas school districts informed the study. The total number of students in these districts classified as EB or ELL was 795,330. Social Constructivism and Social Capital Theories framed the research design.

Multiple regression was run to predict AP exam participation from percent Economically Disadvantaged, percent participation in a bilingual program, average students per teacher, and average teacher experience. Results from this study indicated that one of the four independent variables was statistically significant at the .05 level. The percentage of students classified as Economically Disadvantaged was the only statistically significant variable ($\beta = -.350$). The variable Percent Economically Disadvantaged ($r = .29, p < .001$) was positively correlated with the variable Percent Student Participation in a Bilingual Program. Furthermore, the variable Percent Economically Disadvantaged was negatively correlated with both AP Exam Participation ($r = -.30, p < .001$) and Average Teacher Experience ($r = -.32, p < .001$). The independent variables of Percent in Bilingual Program ($\beta = .186$), Average Student: Teacher Ratio ($\beta = .138$), and Average Teacher Experience ($\beta = .933$) did not have a statistically significant relationship with the dependent variable Percent [Emergent Bilingual students'] Participation in an AP Exam.

Discussion of these findings and recommendations for future research are offered. Implications for policy and practice include increased fidelity to best practices in bilingual education, particularly the program's length and teacher qualifications. Other implications are improving EBs' access to AP courses and continued efforts to mitigate poverty for all students. Future research may explore different variables, populations, and research designs. Data which includes reclassified EBs will be especially valuable.

KEY WORDS: Emergent bilingual, Rigor, Advanced Placement, Economic, Quantitative, Bilingual program, Policy

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TABLE OF CONTENTS

	Page
DEDICATION	iii
ABSTRACT.....	iv
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS.....	viii
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER I: INTRODUCTION	1
Description of Emergent Bilingual Students	1
Statement of the Problem.....	3
Purpose of the Study	4
Research Questions.....	5
Significance of the Study	5
Delimitations.....	5
Assumptions	6
Conclusion	6
CHAPTER II: LITERATURE REVIEW	8
Research Paradigm	9
Theoretical Framework.....	10
Context of Language Support Programs for EBs	14
Variables and Constructs for the Study	19
Previous Literature Identifying Academic Success Markers for EBs in Texas.....	25

Conclusion	26
CHAPTER III: METHODS	27
Research Questions	27
Research Hypotheses	28
Research Design	28
Participants	29
Variables	29
Procedures.....	31
Data Analysis Plan.....	32
Statistical Assumptions.....	33
Limitations	34
Summary	35
CHAPTER IV: RESULTS	36
Data Collection and Preparation	36
Descriptive Statistics	38
Correlations.....	39
Assumption Testing	40
Regression Results.....	44
Analysis of Research Questions	49
Summary	50
CHAPTER V: DISCUSSION	52
Summary of Dissertation	52
Brief Review of Relevant Quantitative Findings.....	54

Possible Reasons for Weak Relationship with Bilingual Programs	56
Implications for Policy and Practice	58
Recommendations for Future Research	60
Conclusion	62
REFERENCES	65
APPENDIX.....	80
VITA	81

LIST OF TABLES

Table	Page
1 Influential Theories	11
2 Variables Considered for Investigation	20
3 Summary of Continuous Variables (n = 125)	39
4 Correlation Matrix	40
5 Model Summary.....	44
6 ANOVA	45
7 Summary of Multiple Regression Results for AP Exam Participation.....	46
8 Coefficients	48

LIST OF FIGURES

Figure	Page
1 Bilingual Programs in Texas.....	16
2 ESL Programs in Texas	18
3 Partial Regression Plot of % A.P. Exam Participation and % in Bilingual Program.....	41
4 Partial Regression Plot of % A.P. Exam Participation and Avg. Students per Teacher.....	41
5 Partial Regression Plot of % A.P. Exam Participation and Avg. Teacher Experience.....	42
6 Partial Regression Plot of % A.P. Exam Participation and % Econ. Disadvantaged.....	42
7 Scatter Plot of Studentized Residual by Unstandardized Predicted Value	43

CHAPTER I

Introduction

Two Emergent Bilingual students in high school face pressure to drop out. One student leaves, and the other perseveres to graduate with honors. Why? Throughout my years as a classroom teacher, this question has intrigued me. Emergent Bilinguals (EBs) enter classrooms with assets and limitations that teachers and administrators can seldom control. We cannot erase the effects of poverty or interrupted schooling. We can, however, create situations that empower EBs to succeed. Some EBs do more than persevere to graduation; they excel in academics and graduate from college. What factors contribute to their success? What are some school districts doing well, and what can we learn from them? How can a school district's policies increase the number of EBs who defy the odds? These questions compelled me to conduct this study. Many of my EB students shared nearly identical demographic and language proficiency backgrounds. I realized that to answer my questions, I needed to control for these characteristics to understand what led one student to drop out and another to endure. For this reason, I chose to conduct a quantitative study with a large data set. I hoped to find correlations to help school districts better support these students.

Description of Emergent Bilingual Students

Definition

The definition of an Emergent Bilingual student is inconsistent across the literature. This group is also termed English language learners (ELLs), English Learners (ELs), ESL students (English as a second language), and Limited English Proficient (LEP). The term "Emergent Bilingual" (EB) is used throughout this study to describe

English language learners, in order to emphasize these students' assets. Emergent Bilingual (EB) is used in my own description of these students. English language learner (ELL) is used when referring to terminology from an existing source, primarily the Texas Education Agency's terms for data reporting. Both terms refer to the same group of students.

The criteria for identifying types of ELLs (including students reclassified as non-ELLs) are not uniform (Kim, 2011). The Texas Education Agency defines ELL as "a student who is in the process of acquiring English and has another language as the primary language" (English learner program models fact sheet #2, 2021). In this study, students are identified as EB if they were classified as ELL in a U.S. K-12 public school at the time of data collection. This definition was chosen to best match the available data. It, unfortunately, does not include students who were formerly classified as ELLs but have since exited an ELL program due to reaching language proficiency standards. While some studies attempt to include former ELLs in the data set, many do not. The highest-achieving EBs might not be considered in the study's calculations because they exited the program before 11th grade. Future studies may find a way to include reclassified ELLs. My study could not use this approach due to the limited data available from the state of Texas.

Population

Emergent Bilinguals (EBs) comprise approximately 10% of the current U.S. K-12 student population (National Center for Education Statistics, 2021). Nationally, 5 million K-12 students were identified as EBs in 2018. In Texas, 926,325 students were identified

as EB. The National Education Association (2020) forecasts that by 2025, 25% of K-12 students will be Emergent Bilingual learners.

The U.S. government reports demographic information for Emergent Bilingual students nationwide and statewide in Texas. According to the National Center on Immigrant Integration Policy (2018), the percentage of K-12 ELLs in Texas (36%) is higher than the national average of 26%. Spanish is the home language of 89.5% of ELLs, followed by Vietnamese (1.6%), Arabic (1.2%), and other languages spoken by less than 1% of families. 44% of Texas ELLs are considered low-income, compared to 32% nationally. The information from the 2018 report is the most recent available data for Texas.

Statement of the Problem

Emergent Bilingual learners comprise a significant portion of K-12 students. They also consistently score below their peers in standardized measures of academic success (National Center for Education Statistics, 2022). This issue concerns the field of education because EBs are specified in national accountability acts such as No Child Left Behind (NCLB) and Every Child Succeeds (ESSA). It is well established that a disproportionate number of Emergent Bilingual students do not graduate high school or enroll in college. There is abundant research on factors linked to EBs dropping out (Boone, 2103; Callahan, 2013; Rodriguez et al., 2022; Watt & Roessingh, 2001). There is less research on the positive side. Why do some EBs not only persevere in high school, but excel? What educational policies support this phenomenon? Much research exists on success factors for all students and at-risk students (Casillas et al., 2012; Stewart, 2007; Thiele et al., 2016). However, very little research exists on indicators for Emergent

Bilinguals specifically. Their assets and needs are unique and educational policies must reflect this reality. The present study could help fill the gaps in the field's knowledge. It sheds light on the school environments related to some EBs' exceptional academic success. Kanno & Cromley (2015) state that Emergent Bilinguals who participate in an AP course are an exception to the rule; they cite additional studies which found only 1% of EBs participated in an AP course in high school. In the present study, EBs' exceptional success is constructed as participation in an Advanced Placement exam for reasons discussed in Chapter II.

Purpose of the Study

The purpose of this study was to determine the relationship between Texas Emergent Bilingual Students' (EBs') participation in a College Board Advanced Placement exam and four predictor variables at the school district level. I chose 125 school districts in Texas to study. The investigation will examine the relationship between EB exam participation and the dependent or predictor variables of (a) the percentage of the school district's EBs enrolled in a bilingual program; (b) the average years of teacher experience in the district; (c) the average student: teacher ratio in the district; and (d) the percentage of students defined as Economically Disadvantaged. Following this analysis, the study will examine the extent to which the listed school district factors predict EB AP exam participation. I will analyze Texas statewide school data in each of these investigations. The degree to which significant relationships exist between the variables will be determined through multiple regression analysis. To that end, the following questions are proposed to guide the study.

Research Questions

The research questions that guided this quantitative study were:

1. What is the relationship between the percentage of Texas Emergent Bilingual students in Grades 11 and 12 who took at least one AP examination in the academic year 2020-2021 and school district factors?
2. To what extent do school districts' (a) Participation in a bilingual program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged predict EB AP exam participation?

Significance of the Study

The above research questions address a critical issue in the field of education.

What can educators glean from an analysis of academically successful Emergent Bilingual learners? Which of the above district factors can predict a tendency for their success? As best as I can determine, these questions have not been formally explored. A review of the present literature related to the topic is presented in Chapter II. This study will fill an important gap and invite similar studies to add to the topic's body of research.

Delimitations

The first delimitation of this study is the target population. Only Emergent Bilingual students, currently classified as ELLs, are included in the study. "ELL", English language learner, is the term used by the Texas Education Agency. "ELL" and "EB" refer to the same group of students. The data set does not include students formerly classified as ELLs but have since exited the program by gaining language proficiency. The study consists of only ELLs in grades 11 and 12 in 125 Texas school districts.

Furthermore, the archival data used for analysis is limited to the 2020-2021 academic school year.

The second delimitation is the research variables. Numerous factors influence student exam participation. Only four quantitative variables, reported on a large scale, are included in this study. For example, the variables do not include student motivation or district STARR scores.

Assumptions

The first assumption is the accuracy of data collected and reported by the Texas Education Agency. The TEA has internal measures and departments to maintain accuracy and reliability. In addition, the use of TEA data has been approved multiple times by the Sam Houston State University IRB.

The second assumption is that participation in an AP exam is a reasonable proxy for the academic success of EBs. Reasons supporting this assumption are discussed in Chapter II. Finally, the statistical assumptions of multiple regression analysis are listed and described in Chapter III.

Conclusion

The population of Emergent Bilinguals in our schools is growing exponentially. As educational administrators make policy decisions to serve these students, abundant information is needed. Studying EBs who excel academically and those who minimally achieve or struggle to meet academic standards is equally necessary. This study can contribute to research that can inform decision-making.

The remainder of this study is organized into five chapters, a bibliography, and appendixes. A review of the current literature on the topic is presented in Chapter II,

along with the theoretical framework which informed this study. Chapter III describes the research design and methods used to conduct the study, and Chapter IV presents the data analysis findings. A discussion of the study's findings and final summaries are offered in Chapter V.

CHAPTER II

Literature Review

This chapter presents a review of the current literature related to the focus of this investigation. Its purpose is to defend the reasons for conducting this study; to identify how school district factors relate to the academic success of EB K-12 students in Texas. The chapter first explains the research paradigm and theoretical framework used to frame the study. Following this theoretical foundation, I discuss themes in scholarly literature that provide background and rationale for my research questions. These questions ask what role, if any, specific school district factors play in the percentage of EBs taking at least one high school AP exam. The factors examined are (a) Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged.

This study will contribute to the scholarship by filling a niche in the field's current published research. As discussed in Chapter I, there are numerous studies on educational factors related to teachers, socioeconomics, motivation, and other critical influences on student achievement. These studies examine the general student population and subgroups such as special education status or ethnicities. Research on the school factors' relationship to Emergent Bilingual students, specifically, is limited. Furthermore, within this narrow body, EB participation in AP courses is seldom explored in relation to the specified factors. My study examines this area and offers important findings to the field of EB education. Its exploration began with a review of the current literature related to the topic, which informed the methodology.

The results of this literature review are organized into several themes. It presents the context of language support programs for EBs. This includes past and present legislation outlining schools' responsibility for the quality education for all Emergent Bilingual learners. Next, programs for Texas EBs are described. These include bilingual programs, ESL programs, and alternative programs. Following the program types, this chapter reviews current understandings of the study's chosen variables. The choice of Advanced Placement courses as an indicator of academic success is explained. A brief review of the study's independent variables: bilingual programs, student: teacher ratio, teacher experience, and school district socioeconomic status, follows. Finally, Chapter II discusses previous literature identifying academic success markers for EBs in Texas. Prior to discussing these themes, this chapter presents a research paradigm and theoretical framework to orientate the study.

Research Paradigm

According to Patel (2015), the researcher's ontological and epistemological stance constitutes their research paradigm. Ontology explores the nature of reality. Regarding scholarly research, I believe there is only one reality or truth. People naturally will interpret this reality differently or be unaware of parts of it. Still, reality exists "out there," and our joy as researchers is to uncover it.

Epistemology flows from one's understanding of reality. It is concerned with the nature of knowledge: how can we know? My views are split on this. On the one hand, I think we can measure objective reality (e.g., student test scores). Research requires facts for hypothesis testing. This, in turn, informs necessary changes in the field. On the other hand, some knowledge is not factual; it must be interpreted. My epistemological stance

here is that subjective knowledge cannot be measured, but it is valid. Noticing and responding to a student's emotional state requires knowledge, yet it is not a fact.

Effective teachers can calculate test scores *and* attune to students' unspoken needs. The teacher's understanding of how to help their student requires both sets of tools. At this stage of my research, I find myself in the middle.

Employing the best tools to explore the research problem informs my research paradigm. I believe pragmatism is the paradigm best suited to my ontological and epistemological stance. According to Patel (2015), pragmatism looks to solve problems. Which approach, methods, tools, and design are appropriate for the immediate research study? I favor this approach in social science research. Humans, especially children, are complex, and a rigid structure will miss key aspects to inform action. A goal of pragmatism is change; the researcher asks what they must find out to solve the problem.

Theoretical Framework

Two overarching theories in education informed the framework of this study. Social Constructivism Theory and Social Capital Theory relate to Emergent Bilingual students' academic success. The theories' tenets informed my choice of variables to explore in this study. They encompass the environment and factors I believe are necessary for EBs' academic success. These theories do not influence data collection or analysis; they influence my approach to design and interpretation. Table 1 outlines the theories that informed this study: Social Constructivism and forms of Social Capital.

Table 1*Influential Theories*

Theory	Tenets	Relationship to EB Success	References
Social Constructivism	Learning is co-constructed through interaction	Need for teacher quality	Vygotsky, 1978
	ZPD, mediated language	T:S interaction and teacher ability to scaffold	Wertsch, 1991
		Benefits of participation in AP courses (peer interaction)	Woolfolk, 1998 Shabain et al., 2010 Davidson, 2010
Social Capital	Social, cultural, and linguistic capital enhance or limit student potential	Effects of school SES on student academic outcomes	Bourdieu (1986)
		Decisions on types of EB programs offered (opinion of bilingual instruction)	Grenfell, 2009 Park & Wee, 2013
		Decisions on resources allocated to EB programs	Rogošić, & Baranović, 2016 Brooks & Karathanos, 2009 Taylor et al., 2008

Social Constructivism

According to Social Constructivism, learning happens through interactions between individuals (Vygotsky, 1978; Wertsch, 1991; Woolfolk, 1998). Knowledge is developed through modeling and imitation within a community of negotiated meaning. Social constructivism informs this study's design because it underscores the importance of high-quality teachers. In the zone of proximal development or ZPD, learners are guided to do more than they can alone. Teachers must be skilled in modeling and scaffolding academic content for EBs (Shabain et al., 2010).

Similarly, social constructivism points to the importance of EB students' inclusion in Advanced Placement courses. Peers model academic language, persistence, and concept knowledge, allowing EBs to become the type of learners investigated in this study. Vygotsky thought that the mind is inherently social (Davidson, 2010; Vygotsky, 1978). Social constructivism's emphasis on the importance of meaningful relationships to build knowledge influenced my decision to explore the independent variables of teacher: student ratio, average years of teacher experience, and percentage of teachers certified in ESL pedagogy. These indicators of teacher quality, and thus their ability to challenge EBs in their ZPD, are critical in the student's journey toward academic excellence.

Social Capital Theory

Social capital refers to the intangible resources a person possesses by virtue of their social position. Bourdieu (1986) first wrote on the various forms of capital that enhance or limit one's potential for success. An individual's social relationships and group connections provide benefits such as money, knowledge of systems, and access to resources (Bourdieu, 1986). A specific example is an upper-class American family's

knowledge of the university application process and personal friendship with an academic dean. A student in this family has intangible resources that will likely result in acceptance to the university. A student without this social capital will need other resources or may not be accepted to the university.

In much of the recent literature, social capital includes linguistic and cultural capital. (Grenfell, 2009; Park & Wee, 2013; Rogošić, & Baranović, 2016). Linguistic capital is the power of language. Individuals who are proficient in a language, and its discourse norms, can access social capital. According to linguistic capital theory, EBs in advanced stages of English language proficiency are positioned to access the resources in their school. The remaining EBs are at a significant disadvantage. Similarly, cultural capital can be defined as the power of familiarity with the dominant culture (Bourdieu, 1986). EBs who are familiar with a school's culture, or attend schools that view their culture as an asset, have greater access to resources to foster academic achievement (Brooks & Karathanos, 2009; Taylor et al., 2008).

Theories of capital inform my study by raising awareness of the disadvantages often faced by EBs in traditional U.S. K-12 schools. Social capital theory suggests ways that education policy can be changed to evoke the intangible resources needed for cultural minority students to excel. Furthermore, it suggests factors for the investigation of this study. I believe EBs who take AP courses have either found ways to gain social capital in the dominant culture, or are nurtured by educators who capitalize on the EBs' own forms of capital they bring to their educational context. A school district's decision to recruit certified bilingual teachers is an example of valuing EB's social, cultural, and linguistic capital.

Summary of Theoretical Framework

Social Constructivism and Social Capital Theory presuppose that EBs can and will succeed, given the right circumstances. An application of these theories influences educational policy for EB education. These policies relate to school district characteristics (such as funding for bilingual programs) and teachers' classroom practices. I believe that districts implementing the tenets of these theories empower EBs to overcome barriers and pursue rigorous coursework. As discussed, this theoretical framework shaped this study's topic, participants, variables, and approach. While these broad theories suggested numerous factors for examination, the literature review narrowed the factors to the four explored in this study. The following section reviews the literature related to these characteristics.

Context of Language Support Programs for EBs

Historical Legislation in the U.S.A.

Several landmark court cases paved the way for current programs supporting EBs. The *14th Amendment (1868)* guaranteed equal protection of the law, regardless of ethnicity. *Brown v. Board of Education (1954)* decreed all students have a right to quality education irrespective of racial status. In 1974, *Lau v. Nichols* interpreted "equality of treatment" as mandating ELL language support in classrooms. *United States v. Texas (1971, 1981)* ordered that all Texas schools plan and implement ELL programs. *Castañeda v. Pickard (1981)* established criteria for the quality of ELL programs. Finally, the No Child Left Behind act in 2001 mandated (among other provisions) that schools must be held accountable for student outcomes. This included standardized test scores for ELLs served.

Current Legislation in the U.S.A.

The Every Student Succeeds Act (ESSA) of 2015 explicitly requires state accountability for EBs. Title I of ESSA provides funds to improve programs in low-income schools. The funding is tied to increased accountability for students' academic achievement. States must include goals for serving EBs in their accountability system (U.S. Department of Education, 2018). Title III of ESSA provides funding specifically for English language learner (Emergent Bilingual student) programs. Its purpose is to promote English language proficiency and academic success for EBs. Schools may use the grants for EB programming, curriculum, professional development for staff, and other related purposes. Education agencies are required to report the progress of EBs, including how long the students remain classified as EBs (NCELA, 2022). Schools have a variety of program models to meet these requirements for educating Emergent Bilingual students in K-12 schools.

Types of Approved Programs for EBs in Texas

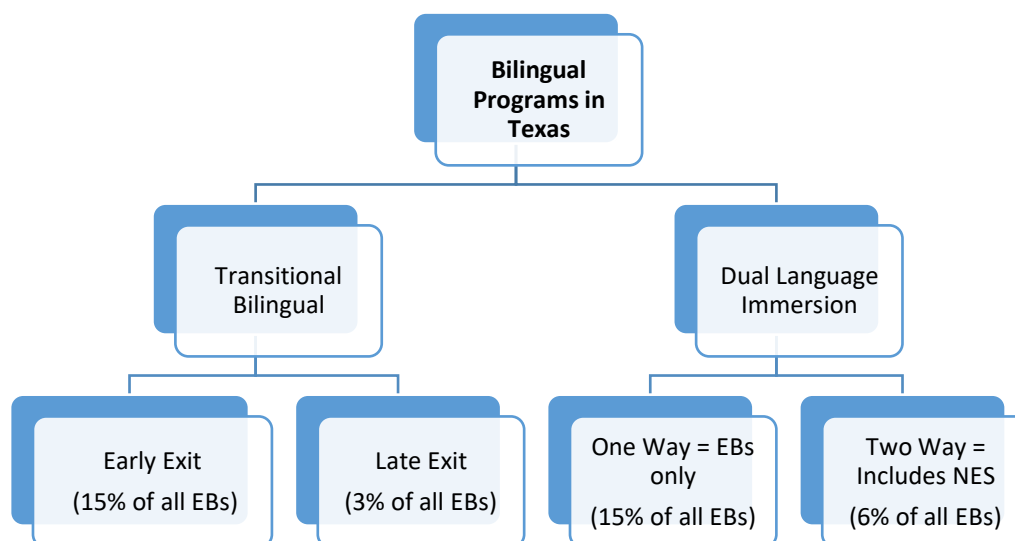
Texas approves three types of program models for Emergent Bilingual learners in public K-12 schools. According to the TEA fact sheet *English learner program models in Texas*, EBs participate in Bilingual Education programs (39%), ESL programs (45%), and Alternative programs (11%). The program types are briefly discussed in the following sections. Approximately 4% of EBs do not participate in any language program due to parental denial of services (Texas Education Agency, 2021).

Bilingual. Texas law states that school districts must offer a bilingual program in districts containing twenty or more elementary students with the same primary language, in the same grade level (Texas Education Agency, 2015). For example, if there are

twenty or more grade 1 EBs whose primary language is Spanish, the district must provide a Spanish-English bilingual program. In Texas bilingual programs, at least 50% of instruction is presented in the student's home language (Texas Education Agency, 2021). This program type is further divided into transitional programs and dual language immersion programs as shown in Figure 1.

Figure 1

Bilingual Programs in Texas

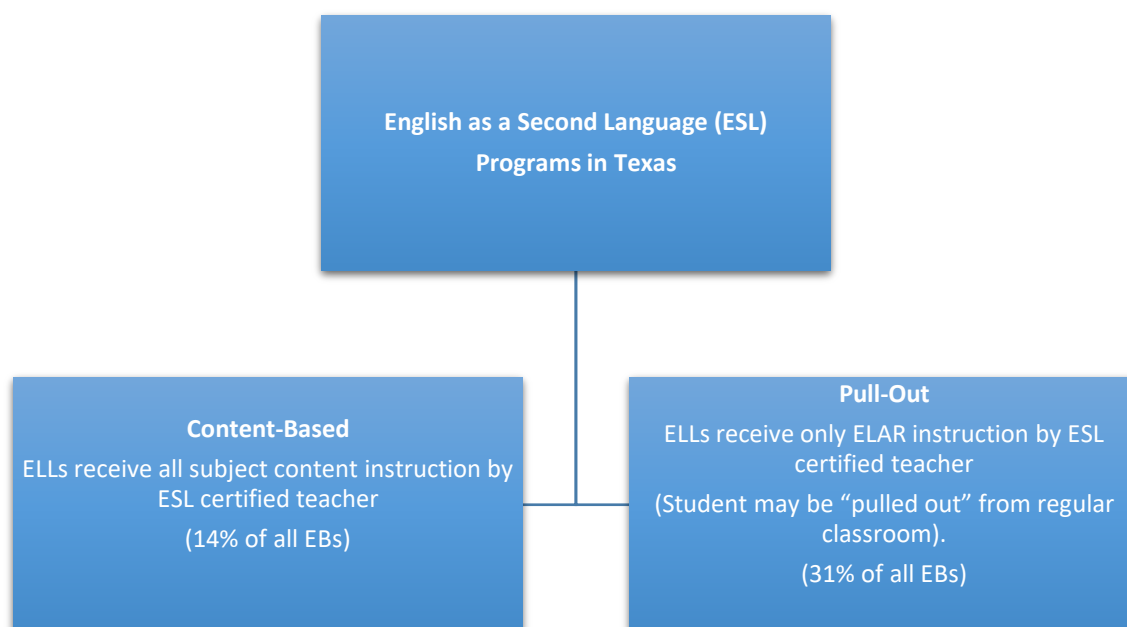


Transitional bilingual programs aim for EBs to eventually gain enough English proficiency to participate in mainstream classrooms. Instruction is presented initially in the student's home language, with minimal instruction in English. Progressively, teachers deliver more instruction in English while the use of the home language is phased out. Early-exit programs may last for 2-5 years, while late-exit programs may last for 6-7 years (Texas Education Agency, 2015). Late-exit transitional programs generally allow

more time for students to develop academic proficiency in English and their native language before transitioning to an English-only environment (Cummins, 2003; Ramirez, 1991).

The goal of dual language programs is to develop and maintain proficiency in two languages, resulting in full bilingualism. This includes social and academic language. Researchers argue that this education model is the most aligned with current understandings of language acquisition, literacy development, and asset-based pedagogy (Alanís, 2000; Cárdenas-Hagan et al., 2007; Cummins, 2001). In Texas one-way bilingual programs, all students are EBs and speak the same home language. Two-way programs also include native English speakers (NES) who will develop proficiency in the partner language, such as Spanish (Texas Education Agency, 2015).

English as a Second Language (ESL). English as a Second Language (ESL) programs in Texas schools have the highest number of EB participants by program type (Texas Education Agency, 2021). ESL programs may be Pull-Out or Content-Based as depicted in Figure 2. In Pull-Out programs, students receive instruction only in ELAR (English language arts and reading) by an ESL-certified teacher. The ESL teacher may assist the EB student with and during their regular ELAR class. The teacher may also “pull out” the EB from class and provide ELAR instruction in a separate space, such as an ESL classroom. In Content-Based programs, students are instructed in all content areas (reading, math, science, and social studies) by ESL-certified teachers (Texas Education Agency, 2021). They are not removed from their classroom.

Figure 2*ESL Programs in Texas*

Alternative Programs. In practice, more than 10% of districts do not provide the required ELL programs (Texas Education Agency, 2021). According to Texas law, a lack of appropriately certified teachers is a sufficient reason (Texas Education Agency, 2020). These districts can apply for a “bilingual exception” or “ESL waiver” and instead provide alternative forms of ESL support. The T.E.A. gives examples such as *sheltered instruction*; a “sheltered instruction trained” content teacher delivers all instruction in English. Paraprofessionals that speak a student’s home language may also provide instructional support (Texas Education Agency, 2021).

Bilingual, ESL, and Alternative programs account for 96% of EBs identified in Texas. In all these models, additional factors affecting EB academic performance are

present. I chose to examine factors on which data is collected and reported in school databases. This allows for a large sample size, which can increase the generalizability of the study's findings.

Variables and Constructs for the Study

This section will cover the dependent and independent variables explored in the study. Table 2 lists the initial factors considered for investigation. An asterisk indicates the final variables chosen for investigation. I decided on these after consultation with experts in the field and my review of the literature.

Table 2*Variables Considered for Investigation*

Teacher Factors	School/District Factors	EB Student Factors
% Certified in ESL	H.S. graduation rate: % All students; % EB only	SES* (Free and reduced lunch)
Type of preparation program	Average Grade 12 GPA: All students; EB only	EB program type in elementary school
Teacher: Student ratio*	% Student population identified as ELL	Standardized English Prof. score, e.g., TELPAS
Ongoing PD in ESL	Availability of and participation in AP courses*	Parent education level
% Teaching in their certified field	Resources offered to EB families	Birthplace
Average years of teaching experience*	Bilingual Programs*	Ethnicity/native language
T-TESS evaluations	STAAR scores	Total years in U.S. schools
Beliefs about EB pedagogy		Date of classification/reclassification

Note. * Indicates the final variables chosen for investigation.

G.P.A.

Student Grade Point Average (G.P.A.) is a measure of academic achievement in high school. Unfortunately, the state of Texas does not track the GPA of EBs specifically. This precludes the meaningful analysis needed to answer this study's research questions. Therefore, participation in an advanced placement course was examined as a different indicator of academic achievement.

Advanced Placement Courses

This study uses student participation in an AP (Advanced Placement) exam as a measure of academic success. Specifically, I use AP exam participation of EB students in grades 11 and 12 as a success marker. A student is assumed to have taken an AP course if they participate in the exam. This indicator was chosen because participation in an AP *course* is not part of the data reported by the T.E.A., but AP *exam* participation is. For the purposes of this study, I determined that AP exam participation is one valid measure of the academic success of high school EBs.

Many high schools in the U.S. offer college preparatory classes. These courses may be termed advanced placement (AP), college prep, dual credit, international baccalaureate (IB), or other terms denoting a curriculum and expectations higher than the school's other classes. These classes generally lead to earned college credit while the student is in high school. This study examines data from AP courses only. This data is reported by the T.E.A. and the College Board, while other advanced course types lack a comprehensive database for the analysis of EB achievement. The College Board provides extensive data on AP course participation (College Board, 2022).

Participation in advanced placement courses is representative of academic success in high school throughout the literature. It has been linked to post-secondary education, career outcomes, and equity of access to academic rigor (Angrist et al., 2016; Callahan et al., 2010; Flores & Fix, 2012; Kanno & Cromley, 2015; Kanno & Kangas, 2014). AP course participation presumes access to AP courses. It indicates that schools provide them to all students, that EBs' class schedules allow for AP courses, and that EB students' language proficiency is sufficient to participate.

A study by Callahan et al., (2010) illustrates the relationship between advanced coursework and overall academic achievement. In a longitudinal, nationally representative study of over 15,000 high school students (including 2,352 EB students), the authors explored the effects of ESL program placement on the students' course-taking patterns. The study's findings link AP courses to better preparation for college for all students. The authors found that participation in advanced math coursework is an "especially strong predictor of college enrollment" (p. 86). Its results also demonstrated that placing EBs in an ESL course often limits their availability to participate in AP courses. This circles back to the question of a school district's course-taking policies and scheduling for EBs but is outside the scope of this present study.

Unfortunately, little research exists on EB participation in AP courses. There is some discussion of course-tracking patterns and their discrimination of at-risk students (Callahan & Shifrer, 2016; Hochschild, 2003; Solorzano & Ornelas, 2002, 2004). However, the discussion of discrimination toward EBs is limited. This study will address this research gap by examining school district factors related to EBs taking AP courses in high school.

Bilingual Programs

I chose bilingual programs as an indicator of quality instruction for EBs and a district's prioritization of their EBs' needs. I believe these qualities are foundational for EB success, as evidenced by the theories I chose to frame the study, my experience as an EB teacher, and my literature review in the field. Bilingual programs are an imperfect proxy, but their statistics are documented on a state and district scale, making them compatible with the study's other variables. Other potential indicators such as teacher

beliefs on EB pedagogy are not reported in Texas databases. Research to support bilingual programs as a variable is discussed below.

Literacy. Research in bilingual education has documented benefits for literacy development in young children. Studies have demonstrated the positive transfer of skills from a child's first language to a second language (Cárdenas-Hagan et al., 2007; Durán et al., 2010; López & Tashakkori, 2004; Tabors et al., 2003). These skills include phonological awareness, vocabulary development, and employing metacognitive strategies.

It is important to note that children may show an initial lag in literacy development (Tabors et al., 2003), but in time they match or outperform their monolingual peers (Bialystok, 2018; Roberts, 2005). This lends itself to future studies demonstrating the necessity of long-term participation in a bilingual program (as opposed to an early exit program) for Texas EBs. However, this query is outside the boundaries of the present study.

Asset-Based Pedagogy. Bilingual programs, especially long-term and dual-language programs, can substantially affect EB students' educational achievement (Bialystok, 2018; Gándara & Escamilla, 2017). They capitalize on the strengths that Emergent Bilinguals bring to the classroom, rather than viewing a different native language as a limitation. This is the concept of asset-based pedagogy, a response to deficit-based models of instruction. Research demonstrates that teachers who use asset-based instructional practices with EBs, and communicate these expectations to their students, see increased student achievement and positive student identity as readers

(DeMatthews & Izquierdo, 2020; López, 2017). It is a form of culturally responsive teaching (Gay, 2018).

In sum, there is robust evidence that bilingual education contributes to a student's academic success. School district administrators prioritizing these programs communicate a desire to value EBs' unique needs. It also implies familiarity with best practices for EB pedagogy. I determined that the data for participation in a bilingual program is a reasonable indicator of EB program quality in the chosen school districts.

Student: Teacher Ratio

The number of students per teacher in a school is linked to student outcomes. A lower teacher: student ratio is associated with increased student academic performance (Koc & Celik, 2015; Martin & Collie, 2019; Rivkin et al., 2005). It also signals a school district's per-pupil expenditure (Jackson et al., 2015; Wenglinsky, 1997). Little information is available on the effects of teacher: student ratio for EB students or in EB program classrooms. This study, therefore, relies on literature examining a school district's overall ratio, as it includes EB students with the general population.

Teacher Experience

Average years of teacher experience is another factor linked to student results. Research shows a positive correlation between it and student academic achievement, positive behavior, and motivation (Clotfelter et al., 2007; Harris & Sass, 2011; Huang & Moon, 2009; Rice, 2003). There is also research suggesting that students experience long-term gains from an experienced teacher (Ladd & Sorensen, 2017). Again, this study will add to the sparse literature on the effects of teacher experience specifically on EB academic achievement.

School Districts and Student Socioeconomic Status

The adverse effects of poverty on student achievement, and on school characteristics, are well established. Students in poverty score lower on standardized tests (Dixon-Román et al., 2013; Lacour & Tissington, 2011; U.S. Turnbull et al., 2001). They are also less likely to graduate from high school (Hernandez, 2011; Mayer & Leone, 1997). Poverty is also linked to school climate, including delinquency and reduced resources (Gottfredston et al., 2005). Keeping consistent with research findings, I assume an inverse relationship between poverty and EB AP exam participation. Poverty is included as a variable in this study so that its effect can be accounted for in the research design.

Previous Literature Identifying Academic Success Markers for EBs in Texas

There is some research on Emergent Bilingual students' exceptional academic achievement in high school. These studies examine EBs' enrollment in college (Kanno & Cromley, 2015) and their pathways to college after high school (Callahan & Shifrer, 2016). Some of these studies include AP course participation in discussing access to a rigorous curriculum (Flores et al., 2012). However, it is not a stand-alone variable. Other studies explore the classification of students as EBs - both the advantages and disadvantages (Reyes & Hwang, 2021; Wassell et al., 2010). Some studies look at school district and state spending trends, and their relationship to EB academic performance (Jiménez-Castellanos & García, 2017; Rolle & Jimenez-Castellanos, 2014). While this literature explores the many factors related to the research question, none focuses on high-achieving EBs.

Conclusion

The purpose of this literature review was two-fold. The first purpose was to examine past and present research on Emergent Bilingual learners' academic success. It offered background information and justification for the study's variables. Background information included a description of EB programs in Texas and legislation related to EB education. Chapter II also provided relevant information on the study's chosen factors for examination. This included Advanced Placement courses, bilingual programs, teacher: student ratio, teacher experience, and school socioeconomic status. A need for this study on the relationship between these factors was established.

The second purpose of Chapter II was to discuss the conceptual and theoretical framework that shaped the study's construction. I offered a description and reasoning for a pragmatic approach. Theories influencing the study's design were subsequently presented and tied to the study's research design. These were Social Constructivism and Social Capital Theory. The research design and methodology are presented next in Chapter III.

CHAPTER III

Methods

This study adds to the limited research on the relationship between Emergent Bilinguals' participation in AP courses and school district factors. Chapter III includes the research questions, research design, procedures, participants, and definitions of variables. The data analysis plan and statistical assumptions are described. Results are examined via standard linear regression analysis procedures to understand and explain the relationship, if any, between EB participation in an AP exam and selected school district variables. Chapter III includes the following sections: (a) introduction, (b) research questions, (c) null hypothesis, (d) alternative hypothesis, (e) research design, (f) participants, (g) variables, (h) procedures, (i) data analysis plan, (j) statistical assumptions of a linear regression (k) limitations and, (l) summary.

Research Questions

This study addressed the following research questions:

1. What is the relationship between the percentage of Texas Emergent Bilingual Students (EBs) in Grades 11 and 12 who took at least one Advanced Placement examination in the academic year 2020-2021 and school district factors?

2. To what extent do school districts' (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged predict Emergent Bilingual students' Advanced Placement exam participation?

In this study, the dependent variable is EB AP exam participation at the school district level. The independent variables or constructs are, at the school district level, (a)

Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged.

Research Hypotheses

Null Hypothesis

The null hypothesis states that there is no significant relationship between the selected dependent variables and the independent variable of Texas EB participation in at least one AP exam in grades 11 or 12.

Alternative Hypotheses

Hypothesis 1. There is a significant relationship between the selected independent and dependent variables. This is true, holding constant the independent variables of (a) Participation in a bilingual program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged.

Hypothesis 2. One or more of the independent variables explain the variance of the dependent variable.

Research Design

This non-experimental study aims to determine the relationship between EB AP exam participation and participation in a bilingual program, average years of teacher experience, average teacher: student ratio, and percentage of students defined as economically disadvantaged. A non-experimental design is appropriate since there is no manipulation of the variables or random assignment to a group (Johnson & Christensen, 2014). This study uses archival data only.

This study employs a correlational research design. Correlational research is helpful for examining the strength of possible relationships or predictions between variables (Gall et al., 2007; Vogt, 2007). Relationships and the extent of prediction are the research questions driving the purpose of this study. According to Gall et al., (2007), correlational research designs are particularly beneficial in analyzing how the independent variables influence a pattern of the dependent variable. This study examines the influence of school district factors on EB AP exam participation. Therefore, the use of a correlational design is fitting. Multivariate statistics are used due to the presence of more than three variables (Gall et al., 2007).

Participants

I procured archival data from the Texas Education Agency (T.E.A.). Specifically, I used data from the 2020 Comprehensive Biennial Report on Texas Public Schools (pp. 1-4) and the Texas Academic Performance Reports (TAPR) for the 2020-2021 school year at the school district level. Additional data was requested and procured from three school districts in Texas. This data consisted of the total number of students in any EB district program and the percentage of those students in a bilingual program.

Variables

Participation in a Bilingual Program

The state of Texas lists three EB program models: Bilingual programs, ESL programs, and Alternative programs. This study examines data related to student participation in a school district's bilingual program(s). The variable is the percentage of a district's Emergent Bilingual students participating in a bilingual program. This may be any variation of a bilingual program approved in Texas, including transitional and dual

immersion. The rationale for identifying bilingual programs as an indicator of rigorous programming for EBs is discussed in Chapter II.

Average Years of Teacher Experience

This variable is termed “Average Years Experience of Teachers” on each school district’s TAPR document. It includes the experience of full-time and part-time teachers. In the TAPR Glossary, the T.E.A. explains the calculations as follows:

The average number of completed years of professional experience, regardless of district. Weighted averages are calculated by multiplying each teacher’s FTE coefficient (1 for a full-time teacher, .75 for a three-quarter-time teacher, and .5 for a half-time teacher, for example) by his or her years of experience. These amounts are added together and divided by the sum of all teachers’ FTE coefficients (p. 32).

Average Student: Teacher Ratio

The T.E.A. lists this construct as “Number of Students per Teacher”. It is the total number of students divided by the total number of full-time teachers in the district. Data on the ratio of teachers in special program types (such as ESL programs) is also reported but is not examined in this study.

Percentage of Students Defined as Economically Disadvantaged

This construct is the variable “Percent Economically Disadvantaged” used in the TAPR documents. The T.E.A. defines Economically Disadvantaged as qualifying for free lunch, reduced (price) lunch, or another type of public assistance. The variable is calculated by dividing Economically Disadvantaged students by the total number of students in the district. Free or reduced lunch is a proxy for poverty throughout the

literature. Students qualify if their household income is at or below 185% of the federal government poverty threshold. They also qualify if they meet special criteria, such as being in foster care or migrant education programs (NCES, 2015).

AP Exam Participation

This variable is the percentage of students in grades 11 and 12 who took at least one College Board Advanced Placement Exam or International Baccalaureate (IB) exam for the given school year. It is calculated by dividing the number of students taking an exam by the total number of students in grades 11 and 12. As discussed earlier, participation in an exam was chosen instead of participation in a course. This is to ensure accuracy in the discussion of the study's findings. The TAPR lists "Advanced/Dual-Credit Course Completion" data. However, this term is not explicitly defined in the TAPR Glossary. It is unclear what is included as an advanced course. The term "AP/IB Exam Participation" is used in both documents. Exam participation is the chosen variable to ensure accuracy since it is consistently used in the TAPR glossary and TAPR school district reports.

Procedures

Before statistical analyses were performed, approval was obtained from the Sam Houston State University Institutional Review Board (IRB). After clearance from the IRB, the data were obtained from the Texas Education Agency's website. Additional data on student participation in a bilingual program was obtained from school district reports. Finally, the dataset was prepared for analysis.

Data Analysis Plan

I first ran basic descriptive statistics to determine mean, median, mode, kurtosis, and skewness. SPSS version 25 was used to conduct analyses. Descriptive statistics are appropriate because the study examined the entire reported population of the chosen districts, rather than making inferences from a collected sample population (Vogt, 2007).

Next, multiple linear regression was run with the independent variables of (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students Defined as Economically Disadvantaged. The dependent variable is the percentage of Texas EB AP Exam Participation in the 2020-2021 Academic Year with the range of 0-100%. Multiple linear regression is appropriate because the research questions have more than one independent variable. The questions ask how all the independent variables together make the best prediction of the dependent variable's value. Vogt (2007) describes this as a basic question answered by multiple regression analysis. He also discusses its value in studying the relative weight of all the independent variables, which is present in this study's research questions. Furthermore, multiple regression is versatile; it can analyze categorical, interval, and ordinal data (Gall et al., 2007). This is important since the data in this study are diverse types. The analysis used the regression equation $Y^i = b_0 + b_1 X_{i1} + b_2 X_{i2}$. The equation with the predictors is reported in Chapter IV.

A correlation matrix was produced for all variables and is reported in Chapter IV. The data analysis gives three values of importance to the research questions. First, the regression analysis will yield the R^2 . This is the total variance in AP exam participation explained or predicted by all the independent variables together; also, the corresponding

percent of variance not explained by the full model. This knowledge is vital to interpret the results and making justified conclusions in the Chapter V discussion.

A second value used in analyzing the regression output is the standardized regression coefficient β . I use standardized coefficients because the predictor variables are not all on the same scale. The standardized beta (β) will show the strength of the relationship between the independent and dependent variables (Vogt, 2007). It answers what happens to the dependent variable when the value of the independent variables increases or decreases. For example, for every standard deviation decrease of the variable T:S Ratio, how many standard deviations will AP exam participation increase or decrease.

The third value is the statistical significance of the regression coefficients. A p -value $\leq .05$ is significant but should be interpreted with the R^2 since significance is not synonymous with importance (Vogt, 2007). The data analysis also tests the statistical significance of the dependent variable's relationship to the entire set of independent variables. Part and partial correlations are also examined. Again, this is important to draw accurate conclusions from the equation output. A table of the regression results is presented in Chapter IV.

Statistical Assumptions

Regression analyses are dependent on several assumptions. First, both independent and dependent variables must be interval/ratio data, or categorical. In addition, they must be continuous and unbounded. Field (2005) defines unbounded as “no constraints on the variability of the outcome” (p. 353). Second, a linear relationship must exist between the independent and dependent variables. A scatter diagram was plotted for

each independent variable with the dependent variable. Outliners were identified and addressed (Vogt, 2007).

The third assumption of linear regression is the presence of a normal distribution of data. Q-Q plots and the Kolmogorov-Smirnov test were run to determine the presence of a normal distribution of data. Fourth, there is no perfect multicollinearity between the independent variables. That is, the predictor variables should not be highly correlated (Field, 2005). Predictor variables with a Pearson correlation coefficient of less than one are assumed to have little or no collinearity.

Fifth is the lack of autocorrelation in the data. The residual terms should not be correlated; put another way, the errors should be independent of each other. Scatterplots and Durbin-Watson's d test were used to test for autocorrelation. Fields (2005) gives a general guide that the results of the Durbin-Watson's d test should be near 2 (with a range of 0-4). Values less than 1 or greater than 3 should be carefully checked. The final assumption is homoscedasticity, or homogeneity of variances. This was examined through scatterplots.

These assumptions are important because they affect the ability to make accurate inferences about the variables' relationships to answer the study's research questions. If the assumptions are violated, the standard error will increase. The accuracy of the results will decrease. If these assumptions are met or appropriately addressed, the researcher can proceed with data analysis.

Limitations

The study relies on data collected by the Texas Education Agency (T.E.A.). This study is limited in that it depends on the T.E.A.'s data collection and reporting accuracy. It is subject to errors beyond the researcher's control. The T.E.A. provides information on

its measures to ensure accuracy and reliability in data submission (Texas Education Agency, 2022).

A second limitation is that the data analyzed is only for select school districts in Texas and therefore cannot be generalized to other contexts. Other limitations of this study are common to quantitative methodology. The findings suggest relationships between variables but do not claim causation. Care must be taken not to misrepresent the study's findings. Finally, I may have omitted variables critical to understanding the relationship between EB AP Exam Participation and the chosen school district factors.

Summary

This chapter described the methods used to explore the research questions: (1) What is the relationship between the percentage of Texas Emergent Bilingual learners in Grades 11 and 12 who took at least one AP examination in the academic year 2020-2021 and school district factors? And (2) To what extent do school districts' (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged predict EB AP exam participation? The rationale for the research design, variables, the procedures for data analysis, and the statistical assumptions of multiple linear regression were outlined.

CHAPTER IV

Results

This chapter presents the results of the data analysis. I conducted this analysis to investigate the study's purpose: exploring the relationship between Emergent Bilingual students' participation in Advanced Placement courses and specified school district factors. The study addressed two specific research questions:

1. What is the relationship between the percentage of Texas Emergent Bilingual (EB) students in Grades 11 and 12 who took at least one AP examination in the 2020–2021 academic year and school district factors?
2. To what extent do school districts' (a) Percent Participation in a bilingual program; (b) Average Student: Teacher Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged predict EB AP exam participation?

In this chapter, I report on the data collection and preparation procedures, including the handling of outlier cases. Next, I display and discuss descriptive statistics and correlations between variables. I report assumption testing and present the results of the overall regression model. Finally, I directly link the findings to the study's research questions.

Data Collection and Preparation

Data Collection

The data in this regression analysis came from two sources. The primary source was the 2020–2021 Texas Academic Performance Reports (TAPR) from 129 school districts. I accessed the reports from the Texas Education Agency (TEA) online database.

The TAPR reports provide values for the variables Percent Economically Disadvantaged, Student: Teacher Ratio, Average Teacher Experience, and Emergent Bilingual Students' Percent Participation in an Advanced Placement Exam. Values used to calculate the variable Participation in a Bilingual Program are found in the 2020–2021 Student Program and Special Populations Reports, also located on the TEA website.

Data Preparation

Calculation. I entered the TAPR data manually into Microsoft Excel for the variables listed above. For the variable Bilingual Program Participation, I used data from the Special Population Reports to perform my own calculations and convert the values to percentages. The percentages were all added to the Excel file containing the TAPR data. I checked each value for accuracy and imported the sheet to SPSS. Detailed descriptions of each variable and their mathematical calculations were discussed in Chapter III.

Deleted Cases. Four school districts were deleted from the analysis. I made this decision after testing assumptions with and without the cases in question. According to Vogt (2009) and Borg, Borg, & Gall (2007), listwise deletion is an appropriate choice if the data have the specified characteristics. This made a final total of 125 school districts used in the study's analyses.

Two school districts were deleted due to missing data. Numbers for the dependent variable AP Exam Participation were masked by the TEA. Two school districts were deleted due to the presence of outliers. In one of these cases, the SPSS output showed a standardized residual of 8.009, more than three standard deviations above the mean for the variable AP Exam Participation. The variable Percent Economically Disadvantaged was also atypical in this case. In the second outlier case, an error in data entry is assumed.

The TEA report for special programs indicated that 181.63% of district students participated in a bilingual program; this is impossible.

Remaining Outlier Cases. Two additional cases were outliers with standardized residuals of 4.347 and 3.580 and studentized residuals of 4.94940 and 3.97173, respectively; however, I chose to include them in the final analysis. These school districts reported complete data for all variables. There were no leverage values above 0.2 or Cook's Distance values above 1. In addition, although Percent Participation in an AP Exam was high compared to the other school districts, the numbers were plausible. This dependent variable is the focus of my study; I felt it is important to include these cases to facilitate future research.

Descriptive Statistics

Table 3 presents the descriptive statistics for the 125 school districts analyzed. The four independent variables and one dependent variable are displayed in decreasing order of the mean values. The primary variable of interest, EB Student Participation in an AP Exam, had a mean value of 7.43. It ranged from 0–33.3%.

Table 3*Summary of Continuous Variables (n = 125)*

Variable	Min	Max	<i>M</i>	<i>SD</i>
% Economically Disadvantaged	1.20	95.30	59.00	24.06
% in Bilingual Program	0	90.59	41.01	19.73
Students per Teacher	12.3	17.5	14.68	1.09
Average Teacher Experience	7.5	15.5	10.96	1.43
% AP Exam Participation	0	33.30	7.43	5.43

Correlations

Bivariate correlations between the variables are presented in Table 4. The variable Percent Economically Disadvantaged was significantly negatively correlated with % AP Exam Participation ($r = -.30, p < .001$) and Average Teacher Experience ($r = -.32, p < .001$). In addition, Percent Economically Disadvantaged was significantly positively correlated with Percent in Bilingual Program ($r = .29, p < .001$).

Table 4*Correlation Matrix*

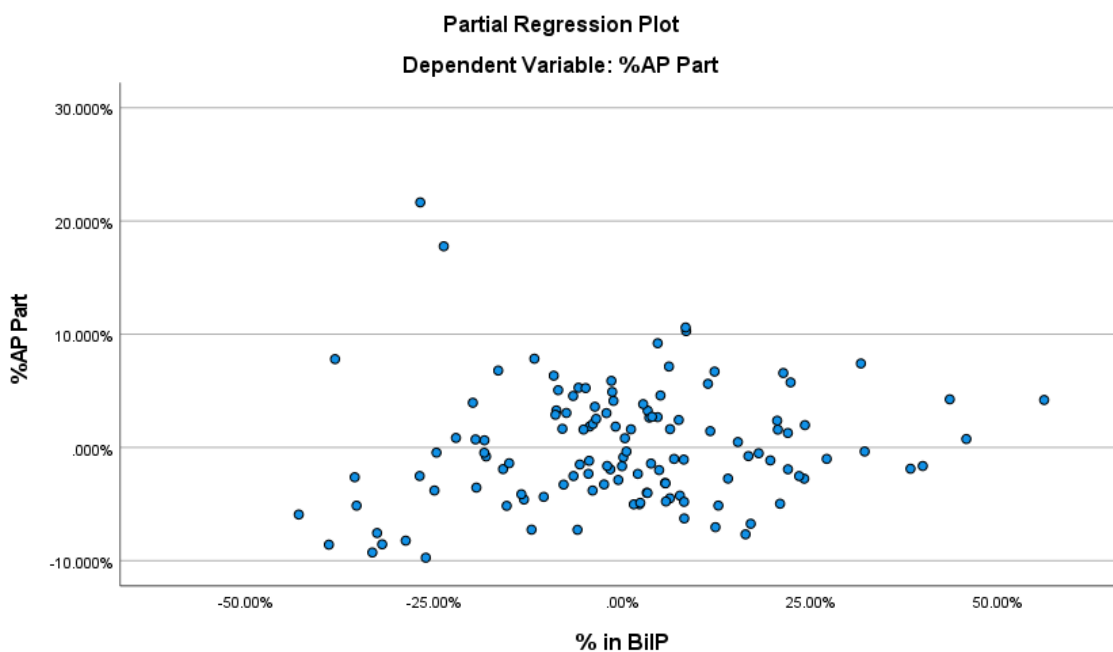
Variable	% AP Part	% in Bil. P.	Stud Per Teach	Avg T Exp
% AP Part.	-			
% in Bil. P.	.00	-		
Stud Per Teach	-.08	.13	-	
Avg T Exp	.12	.03	-.06	-
% Econ Dis	-.30**	.29**	-.09	-.32**

Assumption Testing

A Durbin–Watson statistic of 1.998 established the independence of residuals. Since the statistic was very close to 2.0, the assumption of no autocorrelation was met. Partial regression plots and a plot of studentized residuals against the predicted values established linear relationships between the variables. Figures 3-7 display these plots. I did not observe any curvilinear trends.

Figure 3

Partial Regression Plot of % A.P. Exam Participation and % in Bilingual Program

**Figure 4**

Partial Regression Plot of % A.P. Exam Participation and Avg. Students per Teacher

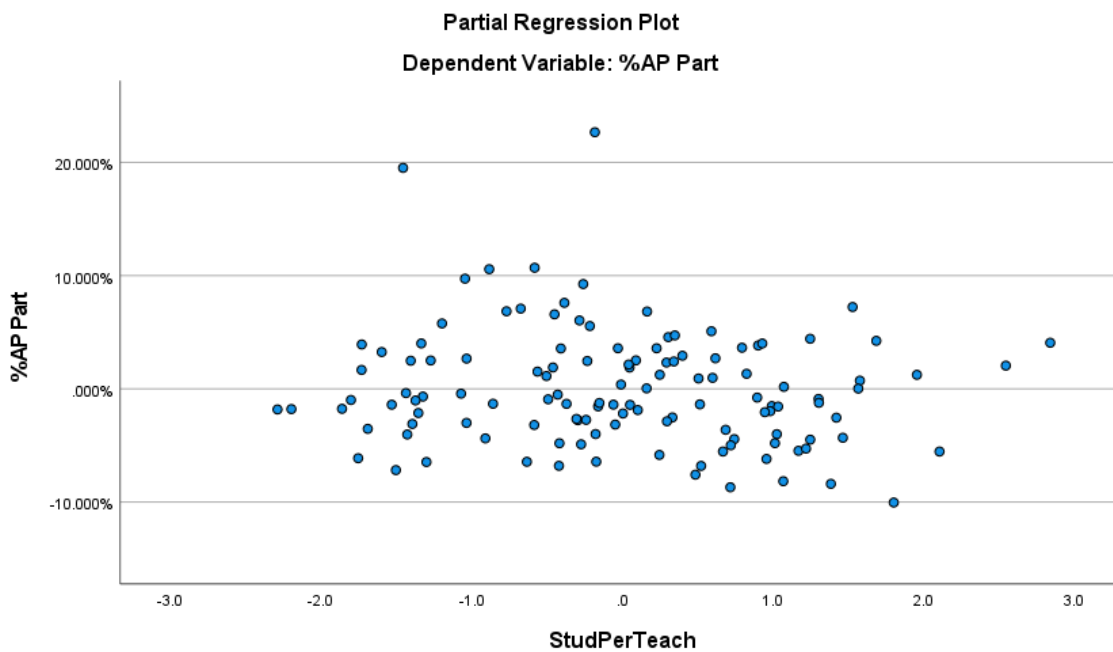
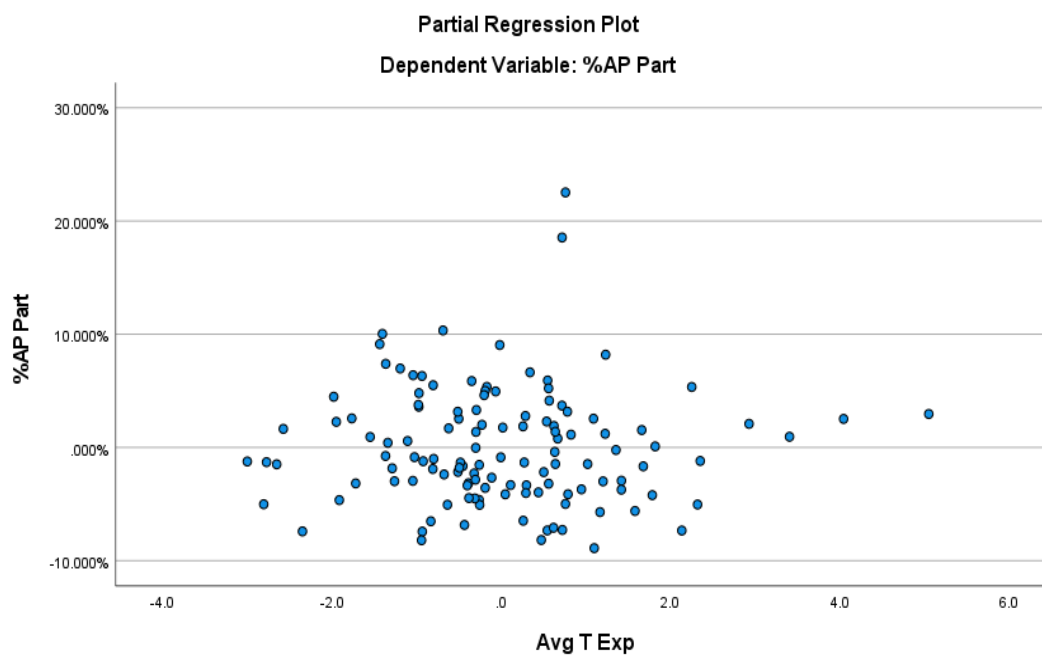


Figure 5

Partial Regression Plot of % A.P. Exam Participation and Avg. Teacher Experience

**Figure 6**

Partial Regression Plot of % A.P. Exam Participation and % Econ. Disadvantaged

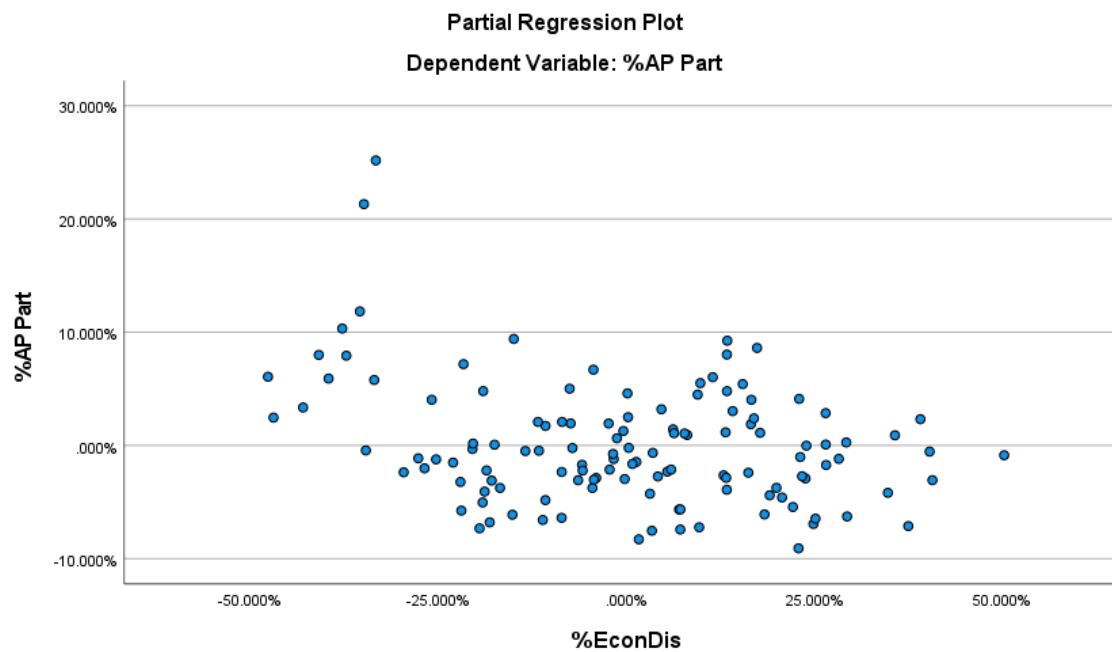
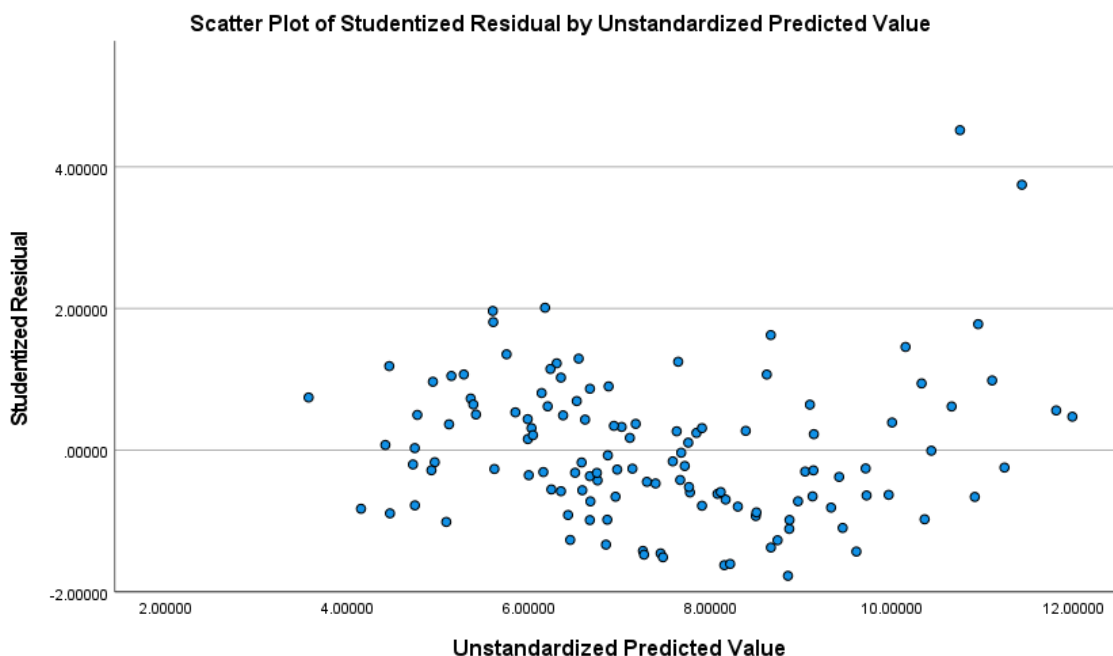


Figure 7

Scatter Plot of Studentized Residual by Unstandardized Predicted Value



A visual inspection of the plot of studentized residuals vs. unstandardized predicted values indicated homoscedasticity (see Figure 7). The data points were evenly and randomly distributed. No multicollinearity was present. There were no correlations greater than 0.7 in the SPSS output. All tolerance values were greater than 0.1.

I addressed highly influential points by deleting four cases, as discussed in the data preparation section above. After these deletions, two cases still showed studentized deleted residual values greater than 3.0, which is defined as an outlier. However, there were no cases with high leverage points (i.e., greater than 0.2). Furthermore, there were no Cook's distance values above 1.0. The decision was made to continue assumption testing without removing the two cases.

The assumption of normality was met with the creation and inspection of P-P and Q-Q plots. The data points did not strongly deviate from the diagonal line. The residuals

were normally distributed. Skewness and kurtosis of the individual variables were also run; all values were within an acceptable range except for the two outliers discussed above. In summary, all assumptions of multiple linear regression were met.

Regression Results

Overall Fit of the Model

The R^2 for the overall model is .116 with an adjusted R^2 of .086. This is a minimally significant effect size, according to Ferguson's (2009) interpretation criteria for social science research. The model explains 11.6% of the variance in the dependent variable.

The overall model that included the variables Percent Economically Disadvantaged, Students per Teacher, Percent in Bilingual Program, and Average Teacher Experience statistically significantly predicted AP Exam Participation, $F(4, 120) = 3.933$, $p < .01$. The study's null hypotheses were rejected. A summary of the results from the regression analysis are presented in Tables 5–7.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.340 ^a	.116	.086	5.187411%

Note. Dependent Variable: % AP Part.

^a Predictors: (Constant), % in BilP, Avg T Exp, StudPerTeach, %EconDis

Table 6*ANOVA*

Model		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
1	Regression	423.376	4	105.844	3.933	.005 ^a
	Residual	3229.109	120	26.909		
	Total	3652.484	124			

Note. Dependent Variable: % AP Part.

^a Predictors: (Constant), % in BilP, Avg T Exp, StudPerTeach, %EconDis

Table 7*Summary of Multiple Regression Results for AP Exam Participation*

AP Exam Part.	<i>B</i>	95% CI for <i>B</i>		<i>SE B</i>	β	<i>R</i> ²	<i>Adj. R</i> ²
		<i>LL</i>	<i>UL</i>				
Model						.12	.09
Constant	20.638	4.492	36.785	8.155			
% in Bil.P.	.034	-.016	.084	.025	.122		
StudPerTeach	-.654	-1.522	.213	.438	-.131		
Avg T Exp	-.030	-.723	.664	.350	-.008		
% Econ Dis	-.079***	-.122	.036	.022	-.350		

Note. Model = “Enter” method in SPSS Statistics; *B* = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; *R*² = coefficient of determination; *Adj R*² = Adjusted *R*².

*** $p < .001$

Coefficients of the Regression Model

Each of these coefficients tested the relationship of each predictor (independent) variable with the dependent variable while controlling for all other predictor variables. All other variables were held constant. Of the four independent variables, only Percent Economically Disadvantaged demonstrated a significant relationship with AP Exam Participation when Student: Teacher Ratio, Average Teacher Experience, and Percent in Bilingual Program were controlled for.

The regression coefficients table 8 below displays the predictors (independent variables) that drive the significance of the model. The primary predictive variable was Percent Economically Disadvantaged; it was the only variable that was statistically significant with a value of $-.350$. Regression coefficients for the remaining variables are shown in Table 8 but are not discussed here, as they are not statistically different from zero.

Standardized Coefficients. These coefficients indicate the relationship between each variable after converting them to standardized values. This conversion is necessary because the variables are measured on different scales. For example, Average Students per Teacher is a ratio and is not represented on a 0–100-point scale. The effect size for each individual predictor variable is the standardized regression coefficient, which ranges from 0–1. Values closer to 1 indicate a stronger relationship between variables than, while values closer to 0 indicate a weaker relationship between variables.

As reported earlier, the variable that exhibited the strongest relationship with AP Exam Participation was Percent Economically Disadvantaged. The standardized regression coefficient for Percent Economically Disadvantaged ($-.350$) was considerably higher in magnitude than the standardized regression coefficients of the other variables. The other variables' coefficients were not significantly different from zero.

Unstandardized Coefficients. Unstandardized coefficients can be interpreted as the predicted amount of increase or decrease in the dependent variable for each one unit of change in the independent (predictor) variable. The unstandardized regression coefficient for the statistically significant variable Percent Economically Disadvantaged is $-.079$. The slope coefficient is negative, indicating a negative relationship between the

variables. As the values of Economically Disadvantaged increase, the values of AP Participation decrease. With this variable, for every 1 percent increase in Percent Economically Disadvantaged, one can predict AP Exam Participation to decrease by .079% (about 8 hundredths of a percent).

Table 8

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Partial
1	(Constant)	20.638	8.155		2.531	.013	4.492	36.785			
	%EconDis	-.079	.022	-.350	-3.612	.000	-.122	-.036	-.301	-.313	-.310
	Avg T Exp	-.030	.350	-.008	-.084	.933	-.723	.664	.117	-.008	-.007
	StudPerTeacher	-.654	.438	-.131	-1.493	.138	-1.522	.213	-.084	-.135	-.128
	% in BilP	.034	.025	.122	1.329	.186	-.016	.084	.003	.120	.114

Note. Dependent Variable: % AP Participation

Regression Equation

The analysis used the standard regression equation $\hat{Y}_i = b_0 + b_1 X_{i1} + b_2 X_{i2} + b_3 X_{i3} + b_4 X_{i4}$. The predictive equation is included here since it may be of interest to the reader. However, I did not calculate predictions in this study's analysis; it is outside the scope of the research questions.

Predicted AP Exam Participation = 20.638 + (-.079 x Percent Economically Disadvantaged) + (-.654 x Students Per Teacher) + (.034 x Percent in Bilingual Program) + (-.030 x Average Teacher Experience)

Analysis of Research Questions

Research Question 1

Research question 1 asked, what are the relationships between the percentage of Texas Emergent Bilingual students in Grades 11 and 12 who took at least one AP examination in the academic year 2020-2021 and school district factors? Pearson r correlations identified relationships between the dependent variable Percent AP exam participation and the independent variables (school district factors) of (a) Percent Economically Disadvantaged students, (b) Percent Student Participation in a Bilingual Program, (c) Average Teacher: Student ratio, and (d) Average Years of Teacher Experience. The variable Percent Economically Disadvantaged ($r = .29, p < .001$) was positively correlated with the variable Percent Student Participation in a Bilingual Program. This suggests that school districts with higher numbers of economically disadvantaged students tended to have higher percentages of students in a bilingual program.

Furthermore, the variable Percent Economically Disadvantaged was negatively correlated with both AP Exam Participation ($r = -.30, p < .001$) and Average Teacher Experience ($r = -.32, p < .001$). This indicates that Emergent Bilingual students' AP exam participation rate, and the average experience of their teachers, statistically significantly decreased in districts with higher percentages of economically disadvantaged students. These findings serve to reject the null hypothesis of no significant relationship between the variables.

Research Question 2

Research question 2 asked, to what extent do school districts' (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students Defined as Economically Disadvantaged predict EB AP exam participation? This is answered with the results of the overall regression model. The R^2 for the overall model is .116, meaning that all the independent variables (school district factors) taken together explain 11.6% of the variance in the dependent variable (EB AP exam participation).

In addition, the ANOVA indicated that, taken all together, the independent variables statistically significantly predicted AP Exam Participation, $F(4, 120) = 3.933$, $p = .005$. The null hypothesis of no prediction was therefore rejected. It is important to note that this prediction used a combination of all variables. Not every variable had a significant contribution to the overall prediction, as discussed in the regression coefficients section above.

Summary

This chapter reported the results of the study's statistical analysis. I described my data collection procedures and how the assumptions of multiple regression were met. The section on influential points explained my decision to delete four outlier school districts and keep two outliers in the analysis, for a final total of 125 cases.

Descriptive statistics and correlations were reported with supporting tables. The primary variable of interest, Emergent Bilingual students' participation in an AP Exam, had a mean value of 7.43. Percent Economically Disadvantaged was significantly negatively correlated with % AP Exam Participation ($r = -.30$, $p < .001$) and Average

Teacher Experience ($r = -.32, p < .001$). In addition, Percent Economically Disadvantaged was significantly positively correlated with Percent in Bilingual Program ($r = .29, p < .001$).

Finally, I reported on the overall regression model. The R^2 for the overall model is .116% with an adjusted R^2 of .086. The overall model statistically significantly predicted AP Exam Participation, $F(4, 120) = 3.933, p < .01$. Both of the study's null hypotheses were successfully rejected. These findings have important implications and pose additional questions. Chapter V will offer my interpretation of the statistical findings.

CHAPTER V

Discussion

This study explored the relationship between Texas Emergent Bilingual (EB) students' participation in an Advanced Placement exam and four predictor variables at the school district level. One year of archival data from 125 school districts informed the study. My study examined the relationship between the dependent variable EB AP exam participation and the independent or predictor variables of (a) the percentage of the school district's EBs enrolled in a bilingual program; (b) the average years of teacher experience in the district; (c) the average teacher: student ratio in the district; and (d) the percentage of students defined as Economically Disadvantaged. The multiple regression analysis found a statistically significant negative relationship between EB students' participation in an AP exam, and the percentage of the school district's Economically Disadvantaged students. The analysis also denoted a significant positive relationship between Percent Economically Disadvantaged and Average Years of Teacher Experience, along with Average Teacher: Student ratio.

Following this analysis, the study examined the extent to which the listed school district factors predicted EB AP exam participation. Results indicated that all of the independent variables taken together account for (predict) 11.6% of the variance in a school district's percentage of EB student participation in an Advanced Placement exam.

Summary of Dissertation

Chapter I introduced the necessity of my study, its purpose, and its significance. In sum, Emergent Bilingual (EB) students comprise a significant portion of the U.S. K-12 population. Their academic success should be of high importance to education

stakeholders. My career as a classroom EB teacher drives my curiosity as to why some of my students excelled and beat the odds to graduate, some with honors. Unfortunately, the literature examining factors related to EB academic success is sparse. My study helps to fill this gap; it can offer insight to best support EB students who reach high. Chapter one also provided the reader with background information on Emergent Bilingual students and the Texas programs that serve them.

In Chapter II I presented a literature review of topics related to my inquiry. I examined past and present research on the topic of Emergent Bilingual learners' academic success. The chapter described the population of Emergent Bilingual (EB) students, legislation mandating support for EB students, and descriptions of three broad categories of programs serving EBs in Texas. One of these categories is Bilingual Programs. I summarized research on the benefits of bilingual education and its positive relationship to student success. I next defended my decision to use bilingual program participation in my study, as a proxy variable for a district's support of EB student needs.

This variable description transitioned to background information for the additional variables in my study. These are participation in Advanced Placement courses, teacher: student ratio, teacher experience, and school socioeconomic status. A need for my study of the relationship between these factors was established.

In this chapter, I also discussed the theoretical framework that informed my study's design and data interpretation. Social Constructivism and Social Capital Theory were defined and explored in relation to their influence on my topic. A table of their key tenants and references was included in the chapter.

Chapter III described the methods used to explore the research questions: (1) What is the relationship between the percentage of Texas Emergent Bilingual students in Grades 11 and 12 who took at least one AP examination in the academic year 2020-2021 and school district factors? And (2) To what extent do school districts' (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students Defined as Economically Disadvantaged predict EB AP exam participation? The rationale for the research design, variables, the procedures for data analysis, and the statistical assumptions of multiple linear regression were outlined. Chapter IV delineated the quantitative results of the data analysis; a summary is presented in the following section.

Brief Review of Relevant Quantitative Findings

Some results of the regression analysis were predictable; others were unsuspected. Readers in the education field can easily predict my findings that poverty has a significant negative effect on average teacher experience, and on student participation in advanced courses. The variable Percent Economically Disadvantaged was significantly negatively correlated with Average Teacher Experience ($r = -.32, p < .001$) and with % AP Exam Participation ($r = -.30, p < .001$).

Conversely, I was stunned by my findings on the interaction of Percent in Bilingual Program with Percent Participation in an AP Exam. There was no statistically significant relationship between the two variables. I expand on this result later in the chapter.

I was also surprised by the results of the interaction between poverty and bilingual programs. I found that poverty had a positive relationship with Bilingual Programs; as

one increased, so did the other. Percent Economically Disadvantaged was significantly positively correlated with Percent in Bilingual Program ($r = .29, p < .001$). My original hunch was that wealthier school districts could afford more bilingual programs. The regression analysis indicates the opposite. Districts with higher numbers of EB students also had higher student participation in Bilingual Programs. This could be because Texas provides specific funding for bilingual programs if certain criteria are met (Texas Education Agency, 2020).

My quantitative results are linked to the original research questions in Chapter four. Research question one asked the relationship between the four independent (predictor) variables and the one dependent (outcome) variable. Table 6 displays the results. To summarize, only Percent Economically Disadvantaged had a statistically significant relationship with any other variable. The primary variable of interest, EB student participation in an AP Exam, had a mean value of 7.43%. It ranged from 0-33.3%.

Research question two asked to what extent my chosen variables predict EB students' participation in an AP exam. This is answered with the results of the overall regression model. The R^2 for the overall model is .116, meaning that all the independent variables (school district factors) taken together predict (or explain) approximately 12% of the variance in the dependent variable (EB AP exam participation).

Taken all together, my chosen variables *did* significantly predict Emergent Bilingual Student Participation in an AP Exam. The overall model with the variables Percent Economically Disadvantaged, Students per Teacher, Percent in Bilingual

Program, and Average Teacher Experience statistically significantly predicted AP Exam Participation, $F(4, 120) = 3.933, p < .01$. The study's null hypotheses were rejected.

Possible Reasons for Weak Relationship with Bilingual Programs

The weak relationship between Bilingual Programs and Emergent Bilingual student participation AP exams was also unexpected. This is especially the case because bilingual program participation was my strongest reason to explain the variance in AP exam participation. It was the catalyst for my study's design. I was disappointed that the regression analysis results did not support my assumption. It seemed contrary to my experience and observations as a classroom teacher. As I consulted with colleagues, several explanations for the weak relationship emerged. I am now convinced that the variable Percent Participation in a Bilingual Program was an imprecise and ambiguous construct. Problems with this variable definition are discussed below. Some of these problems are established in the literature, while others are supported by colleagues' careers of experience in public schools.

The first problem with my variable Bilingual Program is that there is a lack of fidelity and consistency in schools' bilingual program implementation. Bilingual classrooms vary widely in terms of teacher certification, percent of instruction in English, program length, and many other factors (Gallo et. al, 2008; Hornberger, 1991; Menken et. al, 2012). There is no strict definition of "bilingual program"; therefore, the quality and format of the program differ from school to school. Experts also observe a lack of legislative enforcement.

Second, many bilingual programs do not align with best practices for teaching emergent bilingual students (Gallo et. al, 2008). Research best supports late-exit, dual-

immersion programs that aim for full bilingualism (Brisk, 2006; Kim et. al, 2015; Umansky & Reardon, 2014). These programs only account for 24% percent of Texas EB participation. Many students are being shortchanged of the full benefits possible in a bilingual educational program. The programs are not long enough to produce meaningful results. EB students may be enrolled in a program, but it is not necessarily conducted in ways likely to support them in high school advanced placement coursework (Alanis & Rodriguez, 2008). The lack of correlation between bilingual programs and AP exam participation exposes the need for high-quality EB programs and measures to enforce their implementation.

Third, it is sometimes the case that Emergent Bilingual students' participation in AP courses is determined entirely by a school district's poverty or availability to fund AP courses. If no students can take AP courses, it follows that no EBs can take AP courses. Data from my study support this line of logic. The TAPRs indicated that in several school districts, zero students (of the total student population) participated in an AP exam. This illustrates the need for continued efforts to address the debilitating effects of poverty in schools, particularly for marginalized groups.

Fourth, the (former) EB students most likely to take an AP exam will have already exited their bilingual program by 11th or 12th grade. Since they are no longer classified as EB, their participation in an AP exam is not counted toward the EB student population (Texas Education Agency, 2021). A study published in the American Education Research Journal used twelve years of data to examine the long-term effects of bilingual programs. The authors found that, by the end of high school, EBs in high-quality bilingual programs have higher English proficiency and "academic threshold

passage” and are more likely to be reclassified as former English learners (Umansky & Reardon, 2014).

My final explanation for the weak relationship is that I likely omitted variables that critically impact Emergent Bilingual students’ participation in AP courses. Part of this omission is due to the limited time and scope of my study. I chose to use archival data, knowing it precludes the use of interviews, focus groups, and other types of inquiry that would suggest additional significant variables.

Implications for Policy and Practice

Quality and Availability of Bilingual Programs

As discussed above, bilingual programs vary widely in several important ways. School districts often struggle to staff classrooms with certified bilingual teachers (Ernst-Slavit, & Wenger, 2006; Kennedy, 2020; Sakash, & Chou, 2007). This results in underqualified teachers or in the lack of a bilingual program at all (Hernández & Alfaro, 2020; Torres-Guzman & Goodwin, 1995). Chapter two explained that over 10% of Texas EBs are served by an “alternative program”. These students do not receive the legally mandated language support to succeed in classrooms. This situation could be improved with additional requirements and funding EB programming. For example, school districts could create pathways and incentives for adults who are already bilingual to gain teacher certification. A few, albeit limited, studies support these methods to recruit, train, and retain bilingual teachers in public schools (Alfaro, 2018; Casey et al., 2013). Furthermore, legislation with teeth could improve fidelity to bilingual classroom state standards.

Advanced Placement Courses for Emergent Bilinguals

Access to rigorous coursework is connected to higher rates of high school graduation, college enrollment, and career prospects (Angrist et al., 2016; Callahan et al., 2010; Flores & Fix, 2012; Kanno & Cromley, 2015; Kanno & Kangas, 2014). It is important that all students have access to and the necessary support to succeed in AP courses. Unfortunately, common practices in high schools hinder Emergent Bilingual students' opportunities. These barriers can be schedule constraints (such as scheduling language support classes in the same "elective block" as AP courses) which create a logistic impossibility (Callahan et al., 2010).

Another barrier is a lack of scaffolding or support for EBs who do enroll in AP courses. Teachers need professional development to help EBs access course content. A policy similar to Individual Education Plans (IEPs) for students in special education status would be helpful to Emergent Bilingual students. If schools and teachers are held accountable for providing language scaffolding in AP courses, more EB students can be successful.

Addressing Economic Inequality in Schools

My study's findings also underscore the problems with economic inequality in school districts. The problem is well-researched yet persists. The opportunity gap is widening. However, I believe the problem is not insurmountable. In my data set, some school districts with high numbers of impoverished students had a (relatively) high percentage of EB students taking an AP exam. The regression analysis deals with averages, but exceptions exist. For example, in school district case 7, 85% of students were economically disadvantaged. Yet 17% of Emergent Bilingual students in the district

took an AP exam. (For context, the average AP participation rate for all school districts in my study was 7%). Other factors are clearly present in these successful school districts. Future research can uncover more of these factors and guide policy decisions. The data I explored in this study leads me to think that the potential for EB success (AP coursework) is strongly tied to economic factors. Therefore, policies that address poverty are especially relevant to Emergent Bilingual students, their parents, teachers, and school administrators.

Legislation intended to reduce economic inequality can be broadened. Chapter one discussed the history of monumental court cases which established and expanded opportunities for Emergent Bilingual students. I believe this upward progress can continue if current and future laws are amended to specifically include Emergent Bilinguals. In general, most students classified as EBs are below the poverty threshold. It is equally important to consider their unique needs when school districts allocate Title I funds.

Recommendations for Future Research

The results of this study inform several recommendations for future research on the topic of Emergent Bilingual students' academic success. Two general categories of exploration emerge. First, future studies could include, exclude, or manipulate different variables. Second, researchers could explore different populations and participants.

Additional Variables

Variables of this study included (a) Percent Participation in a Bilingual Program; (b) Average Teacher: Student Ratio; (c) Average Years of Teacher Experience; and (d) Percent of Students defined as Economically Disadvantaged. The scope and methodology

of the study preclude the analysis of many other variables with the potential to address the research questions.

Additional variables supported by the literature include school district size, teacher certification and preparation, the existence of support systems, and parental involvement. Future researchers are encouraged to run multiple regression analyses with different sets of variables. These may include factors that are explored qualitatively, although this will require modification of the study's methods. Student motivation, parent expectations for college, and teacher attitude are examples of variables that may have significant effects on the academic success of Emergent Bilinguals.

Finally, the absence of data for reclassified (former) Emergent Bilingual students is a significant limitation of this study. These students are more likely to participate in Advanced Placement courses due to increased English language proficiency and course scheduling options. For example, many secondary schools employ block scheduling for elective courses. Reclassified EBs, since they do not attend ESL classes, may have more free periods to participate in AP courses. These students are Emergent Bilinguals, but they are not classified as such in many school databases. Unfortunately, this means they are not included in statistics for EB participation in AP exams. It masks the success of the bilingual programs they have exited. Future researchers with access to student-level data could glean information for this student group and include their statistics in the analysis.

Additional Populations

The specific population of the present study (Texas Emergent Bilingual Students, in grades 11-12, from 125 school districts, in the 2020-2021 school year) limits its generalizability to other educational contexts. Therefore, additional studies using data on

Emergent Bilinguals in different contexts will add important information to the body of knowledge on the topic. Future research could explore EBs in different grade levels, different states, and different location factors. It could also run an analysis with similar independent variables to this study, but change the dependent variable to a different success measure, such as STARR scores.

Qualitative Approaches

Qualitative follow-up to this study would provide key insights into the topic of Emergent Bilingual success. Large data sets offer limited insight into the “why” of students who participate in AP exams and those who do not. In contrast, qualitative interviews which dive deeper than archival data may suggest “why” factors of EB success and policy implications. I plan to pursue qualitative means of follow-up to this specific dissertation. I can interview students, teachers, parents, and administrators of the included school districts and glean their opinions on the topic. I can also share the results of my analysis and ask if their experiences confirm or refute the results.

Conclusion

This discussion chapter interpreted the results of my study on the relationship between Emergent Bilingual students’ academic success and the selected school district factors. It began with a brief review of the regression analysis’ quantitative findings. Next, I explored reasons for the apparently weak relationship between student participation in a bilingual program and EB student participation in an Advanced Placement exam. My reasons are generally related to a lack of fidelity to best practices in educating EB students. Implications for policy and practice were discussed. These included the quality and availability of bilingual programs, Advanced Placement courses

for Emergent Bilinguals, and addressing economic inequality in schools. Finally, this chapter offered suggestions for future research: different variables, populations, and study designs.

It is my hope that this dissertation sheds light on the school environments related to some EBs' exceptional academic success. Emergent Bilingual students are the joy of my career. I will work toward informing policy and practice related to EB empowerment. Dissemination of research findings, however incremental, will contribute to the education field's knowledge of this subject.

I have grown tremendously as a researcher in the course of this dissertation study. My two primary areas of growth are in factual knowledge of statistics, and in reflective practice of my educational philosophies. Before beginning this study, I was uncomfortable with quantitative analysis. I lacked confidence. However, I pushed myself to learn about quantitative research while I have the benefit of mentors and my committee. It paid off. I have learned the purpose and methods of regression analysis. This includes methods of data collection, statistical analysis, and interpretation of statistical software's output. Most importantly, I have learned the advantages and disadvantages of each research method decision when challenges arose in my study's design. This will inform my lifetime role as an inquisitive researcher employing sound methodology.

My identity as a lifelong learner has increased in conviction and in reflective practice. I learned that my experiences as a classroom teacher are valuable, and I am more open to using my informal hypotheses to conduct research. I have learned that findings that refute my hypothesis are opportunities for growth. I can reframe my study's

design and variables considering my findings and discussion with colleagues. This will refine my educational philosophies and teaching practices as I accrue knowledge in the education field. In short, I have become more open-minded and comfortable with a lack of definitive answers. This dissertation is a first step toward becoming a mature researcher.

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APPENDIX

IRB Letter of Approval SHSU



Date: Aug 4, 2022 5:58:04 PM CDT

TO: Debra Price Shawna Taylor

FROM: SHSU IRB

PROJECT TITLE: English Language Learners Who Beat the Odds: A Study of Factors Related to Academically Successful High School Students Classified as ELLs.

PROTOCOL #: IRB-2022-217

SUBMISSION TYPE: Initial

ACTION: No Human Subjects Research

DECISION DATE: August 4, 2022

Greetings,

In accordance with applicable federal law governing the use of human subjects in research the SHSU Institutional Review Board ("IRB") has reviewed your proposed project entitled "English Language Learners Who Beat the Odds: A Study of Factors Related to Academically Successful High School Students Classified as ELLs." and determined that this project does not meet the definition of human subjects research as defined in Title 45 Code of Federal Regulations Part 46 et al (also known as the "Common Rule") - specifically, secondary data analysis of a public dataset. Therefore, this project is not subject to further SHSU IRB oversight. Even so, please remember that you are responsible for ensuring that your study is conducted in an ethical manner and in accordance with applicable law and SHSU policies and procedures. You may initiate your project. Please contact the IRB office at irb@shsu.edu or (936)294-4875 if you need any additional information.

Sincerely,

SHSU Institutional Review Board

VITA

SHAWNA G. TAYLOR

Education

Ed.D. in Literacy Leadership | May 2023 | Sam Houston State University | Huntsville, Texas

Dissertation: Emergent Bilingual Students Who Beat the Odds: A Study of Factors Related to Academically Successful High School Students Classified as EBs.

M.A. in Teaching English to Speakers of Other Languages (TESOL) | 2019 | Sam Houston State University | Huntsville, Texas

M.A. in Teaching | 2010 | Augusta State University | Augusta, Georgia | 4.0 GPA

B.A. in Cross-Cultural Studies | 2007 | Toccoa Falls College | Toccoa, Georgia | magna cum laude

Teaching Experience

4+1 TEACH Program Fellow and Faculty | 2019-2022

Sam Houston State University, College of Education

- Instructor with the Education Department, teacher preparation program. Provide instruction, evaluation, assessment, and curriculum for undergraduate courses. Teach online, hybrid, and in-person courses for teacher candidates.
 - Courses taught in this faculty position:
 - Literacy Strategies for English language learners
 - Second Language Acquisition
 - ESL Teaching Methodology
- Research and support for a grant-based teacher preparation program.
 - Data collection and analysis for program evaluation
 - Present at national education conferences
 - Design and deliver professional development for our grant participants
 - Research with educators in high-poverty schools
 - Adapting curriculum and assessment for special population students
 - Teacher and employee retention

- Novice teacher retention in high-needs subject fields and underserved geographic areas
 - Educator certification
 - Alternative teacher preparation programs vs. traditional programs
 - Mentoring models
 - Using technology in the classroom for teacher self-reflection and growth
- Provide colleagues with professional development in TESOL methods

Classroom ESOL Teacher (English for Speakers of Other Languages) | 2010-2014

Richmond County Public School District | Augusta, Georgia

- Taught Social Studies to Grade 8 mainstream students
 - Created lesson plans and guided students toward mastery of state social studies standards
 - Implemented student-focused projects and assessments, such as dramatizations of key historical events
 - Emphasized tolerance and curiosity toward differing opinions/viewpoints
- Taught ESOL Math, Science, English/ELA, and Social Studies to ELL students in grades 4-8
 - Content-Based Instruction to teach both grade-level subject matter and English language skills. Example: Learning key vocabulary nouns, verbs, and language chunks to describe the three branches of the U.S. government.
- Incorporated all core subjects into a sheltered instruction (SIOP) program model
 - Designed and taught lessons that met state curriculum standards and ESOL language objectives
 - Conducted ongoing assessment of student progress through individual folders and student conferences
 - Prepared regular progress reports of both content area and language acquisition benchmarks. Reported to parents (translated to home languages), school administrators, and state agencies.

- Assisted general education teachers in adapting instruction for ESOL students
 - Weekly grade-level and subject-area meetings with teachers and administrators
 - Coached teachers in methods to differentiate their delivery, methods, and assessments to aid ESL and Special Needs students in the mainstream classroom
 - Researched supplemental and alternative activities to augment the general education teacher's lesson plans when necessary
 - Accompanied ESOL students to mainstream classrooms and provided instructional support

- Formally evaluated newcomer and enrolled ESOL students based on state WIDA assessments
 - Initial placement into ESOL level of instruction
 - Measuring benchmark mastery of language objectives in speaking, listening, reading, and writing
 - Transitioning students to lower-intensity language support over time
 - Monitoring of former ESOL students

- Fostered a multicultural school environment to raise diversity awareness and appreciation
 - Parents' nights with translators (when possible) to open communication with their child's teachers
 - Cultural holiday celebrations in the classroom as they related to units of study
 - Bring-and-share activities to build students' pride in their cultural backgrounds
 - Student-designed artwork to showcase home countries in the school hallways

English Language Instructor, English for Academic Purposes (EAP/ESL)| 2017-2019

Sam Houston State University English Language Institute, Huntsville, Texas

- Designed and taught EAP classes for international ESL students pursuing a university degree in the United States.
 - Taught courses in the Intensive English Program's beginner, intermediate, and advanced proficiency levels.
 - Academic Writing

- Organization: topic sentences, transitions, and supporting claims
- Using Outside Sources: research, summary, citations, and paraphrase
- Academic Register: active and passive voice, word choice, and sentence structure
- The Writing Process: brainstorming, graphic organizers, peer review, revising, publishing
- Conferenced with students to discuss their writing assignments during the drafting process.
- Listening and Speaking
 - Listening for various purposes: main idea, details, evidence, speaker's attitude
 - Speaking skills: asking for clarification, expressing one's opinion, friendly conversation initiatives, describing an event or concept, intonation, and pronunciation
 - Formal oral presentations and debates
- Reading
 - Taught the use of graphic organizers to aid reading comprehension: semantic mapping, cause/effect flow chart, compare/contrast T-charts
 - Assessed students before, during, and after each benchmark to tailor instruction
 - Used questionnaires and reading inventories to determine student interests and inform reading passage choices
 - Guided students to use research-based reading strategies: making predictions, skimming, finding connections outside the text, summarizing, and self-monitoring
- Grammar and Integrated Communication Skills
 - Focused on grammar for communicative purposes: verb tenses, types of clauses, syntax
 - Incorporated games, songs, and competitions to encourage student participation and skill retention
 - Emphasized the connections between grammar and other academic skills
- Organized and supervised student enrichment and cultural activities
 - Trips to history museums, NASA, and holiday events

- Weekly “Conversation Café” to help students practice English conversation skills and build peer relationships. Volunteer native English speaker students joined ESL students for semi-structured speaking practice.
- Award ceremonies to recognize student accomplishments at the end of each term
- Incorporated technology into the language classroom
 - Online learning platforms such as Blackboard
 - Discussion boards, peer reviews, portfolios
 - Resource links for student assignments and reference
 - Maintaining teacher communication with students outside of class time
 - Real-time video conversations with native English speakers via Skype and Zoom
 - Language learning software such as FluentU and Dyned

English Language Teacher | 2014-2015

Maple Bear Global Schools in Seoul, South Korea

- Planned and conducted lessons for Korean students on an English academic track
- Project-based learning with students PreK- 7th grade
 - Reading Instruction for Bilingual students (native Korean speakers learning to read in English)
 - Phonics and letter-sound correspondence
 - Pragmatics and social foundation phrases
 - English vocabulary, sentence structure, and storytelling patterns
 - **Content Area Instruction** teaching concepts with academic and technical language (for older students) in core school subjects. Examples: biological classification, centripetal force, factoring, and population density.

Reviews

Journal of Literacy Research and Instruction reviewer

SERA conference reviewer

Publications

Novice Teacher Experiences with Remote Teaching during Covid-19 (under review)

Presentations

A.T.E. Annual Conference

Feb. 2020, Atlantic City, NJ

Microcredentials: A promising professional development model for teacher leaders.

International Conference on Education, Training, and Informatics

March 2020, Orlando, FL

SWIVL: A remote observation tool to enhance teacher reflection and practice.

Literacy Research Association Conference

Dec. 2020, Virtual

Exploring the Past, Present, and Future Together: Engaging the Future of LRA through Historical Literacy Research

A.T.E. Annual Conference

Feb. 12-17, 2021, Virtual

Novice Teacher Experiences with Remote Teaching During Covid-19

A.L.E.R. Annual Conference

November 2021, Hilton Head, SC

Editorial group annual meeting

S.E.R.A. Annual Meeting

February 2022

English Language Learners Who Beat the Odds: A Study of Factors Related to Academically Successful High School Students Classified as ELLs.

Professional Development

Strengthening the Educator Workforce: Diversity, Equity, and Inclusion in EED Grants

Participant in a multi-day workshop

September 2021, Virtual

Association of Literacy Educators and Researchers (ALER) annual conference
November 2021, Hilton Head, South Carolina

Certification and Organization

- Certified public-school teacher in Georgia (grades K-12) and Texas (grades 4-8)
- Highly Qualified in ESOL Endorsement from the University of North Georgia
- Phi Kappa Phi Honor Society member
- TESOL International Association member

Volunteer Experience:

- Animal rescue care at Sagok dog shelter in Geoje, South Korea
- Literacy volunteer at Boys and Girls Club of Augusta, Georgia, U.S.A
- Medical missions in Addis Ababa, Ethiopia
- Community building in Guatemala and Cambodia