Hybrid Instructional Model for English Language Learners and Impact on Academic Growth, Language Acquisition, and Grit

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Abstract

The English Language Learner (ELL) population is increasing in schools across the United States. The purpose of this quasi-experimental quantitative study was to determine to what extent there is a difference in academic growth, language proficiency, and grit for ELLs pre- and post-implementation of a hybrid instructional model. Data includes results from Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) in Reading and Mathematics, Kansas English Language Proficiency Assessment (KELPA) scores in the subcategories of Listening, Reading, Writing, and Speaking, and Panorama Grit scores for ELLs in grade six through eight attending a middle school in a suburban school district southwest of Kansas City. Results showed no difference in means for academic growth and grit scores before and after the implementation of a hybrid instructional model. The results in means for language proficiency in reading, writing, and listening showed a difference with a medium effect size; means were higher prior to the implementation of a hybrid instructional model in these subcategories. There was no difference in means for speaking before and after the implementation of a hybrid instructional model. These results indicate that the hybrid instructional model may not have had an impact on academic growth, grit scores, or language speaking proficiency. Additionally, these results might indicate that the hybrid instructional model may have negatively impacted student reading, writing, and listening language proficiency. Conclusions from the literature show that school district personnel should focus on using best practices for teaching ELLs, providing time for collaboration between general education teachers and ELL teachers, and empowering teachers to create a highly caring and organized learning environment for ELLs. Recommendations for

further research include studies comparing ELL academic growth in other types of instructional models, ELL perception of instructional models, and repeating the study without the constraints and unintended consequences of a global pandemic.

Dedication

To Peyton and Easton:

May you find something in which you are so fiercely passionate that it fills your soul. Once you find it, enjoy it forever and use that passion to make something better than it was before.

To Nate:

The sacrifice you made so that I could achieve this goal was significant. While I was absent from family time attending class, doing research, and writing over these past four years, you remained solid and steadfast for our children. I hope they've learned about perseverance, drive, and passion through me, but I wouldn't be surprised if they've learned more from you.

To immigrant families who come to the U.S. for whatever the reason may be:

Know that there are dedicated public educators who desperately want the best for your children and work tirelessly to ensure they have what they need to have a successful future.

Acknowledgments

I would like to first acknowledge my parents for their partnership in this process. They instilled in me the importance of learning and what the power of education can do for others. Thank you, Mom and Dad, for helping me achieve this goal.

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Lastly, I want to acknowledge my dear colleagues of Cohort 22. Lasting friendships were made and I am confident that loads of success lie ahead for each of us. I am thankful to have done this with each of you "every Thursday 'til forever…"

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Chapter 1

Introduction

Since 2000, the number of students attending a public school whose first language is not English has increased (National Center for Education Statistics [NCES], 2019). According to NCES (2019), the increase in the percentage of English language learners, (ELLs) from 2000 to 2017 was just over 30%, beginning with 3.8 million students increasing to 5.0 million students. Throughout the United States, there are currently multiple types of ELL instructional models used in public schools to educate this ever-growing subgroup. Some school districts choose to use a pull-out model for ELL instruction, where students are pulled from a general education classroom to receive additional instruction on content standards. Other districts operate under a push-in model, where ELLs, sometimes referred to as English as a Second Language (ESL) learners, or English Learners (ELs), learn alongside native English-speaking peers for the entirety of the day (also known as immersion) and the ELL teacher provides support to the general education teacher. Still others operate under a sheltered model, where ELLs are instructed separately from native English-speaking peers, often in a different classroom and using different standards and curriculum materials. Lastly, there are some districts who use a co-teaching model, where ELLs are included in mainstream classrooms and curriculum and both the ELL teacher and content teacher take ownership for the ELL's learning. Each model provides some benefit for English language learners in some areas but also has significant challenges. Bell and Baecher (2012) surveyed K-12 ELL teachers and more than 10% of those surveyed indicated a hybrid of the

instructional models for teaching ELLs would be very well received because students would get the best parts of each model.

Statewide, Kansas supports a student ELL population of greater than 10% of its overall population (NCES, 2019). Figure 1 shows the percentage of students enrolled in K-12 who are English language learners for school year 2017-2018 broken down by state. The Kansas State Department of Education (KSDE) reported in 2017 that District A, a district of approximately 30,000 students in the suburbs of Kansas City, supported an ELL population of 11.22% in 2017. Within District A, School S is a middle school comprised of approximately 730 sixth- through eighth-grade students. In 2017, School S's ELL population was 22.79%, more than twice the population for the district average (KSDE, 2019). A quasi-experimental quantitative research study was conducted to examine the impact of a hybrid ELL model of instruction for middle school students at School S in District A. Within the hybrid model, ELLs were enrolled in grade-level general education courses with their English-speaking peers. Some courses were co-taught with an ELL teacher and general education teacher. One period of their day, ELLs were enrolled in a Guided Study course to receive direct ELL instruction and content area support from an ELL teacher in an alternate setting. Newcomers, defined as those students who have been in the country less than 18 months, might also attend a second ELL support class to help with beginning language acquisition and cultural competency.

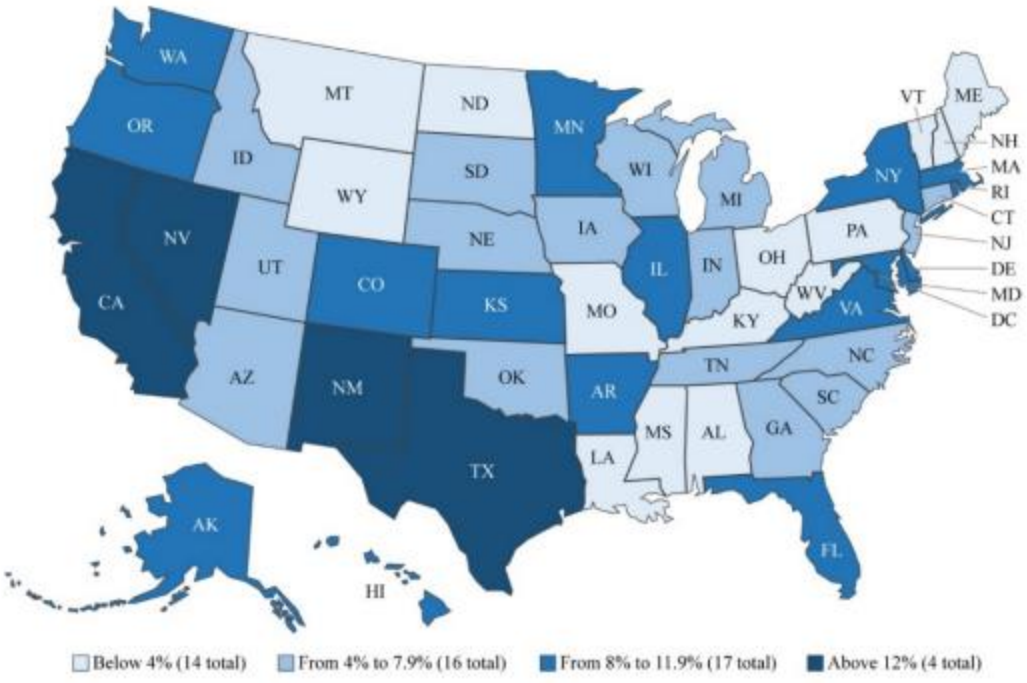

Figure 1. Map of US states and percentage of ELLs enrolled in K-12 public schools from 2017-2018. National Clearinghouse for English Language Acquisition, *Profile of English Language Learners in the United States*, 2021. Retrieved from https://ncela.ed.gov/fact-sheets

In the hybrid model, co-teaching and collaboration are important aspects. Teachers must have regularly scheduled time to collaborate effectively, including planning lessons and identifying key vocabulary scope and sequence (Bell, 2011). Bell, along with Baecher, conducted an additional study in 2012 that provided evidence indicating the collaboration between ELL teachers and general education teachers is more important than the instructional model used. Those researchers also obtained qualitative data from the same study that indicated ELL teachers and general education teachers would prefer a co-teaching or hybrid model *if* administrators could provide a common planning time and support. Reyes stated (as cited in Theoharis & O'Toole, 2011) "the

principal stands out as the one person who can most influence the long-term success of programs for ELLs" (p. 648). These researchers outlined what two principals of separate Midwestern elementary schools implemented to substantially impact the achievement of ELLs in their buildings. While both principals eliminated pull-out services completely, one implemented a dual certification approach while the other implemented a focus on co-teaching and collaboration within a push-in model (Theoharis & O'Toole, 2011). In yet another elementary study, York-Barr, Ghere, and Sommerness (2007) reported that "despite an expedited timeline for implementation and decreased personnel resources…collaborative teaching relationships were productive and rewarding. Of greatest importance, ELL student achievement increased substantially" (p. 301).

Background

District A is a suburban Kansas City school district of slightly over 30,000 students. The community of approximately 140,000 people, has the second-largest school district in Kansas. Historically, this district has operated under a pull-out instructional model for English language learners. Ovando and Combs (2012) reported ESL pullout costs the most of all language program models and is the least effective. According to the Kansas State Department of Education (KDSE), since 2015, the number of ELLs in District A scoring at Level 1 on the Kansas Assessment Program (KAP) in both math and reading have increased, while those scoring a Level 2, 3, or 4, which are considered grade-level and College and Career Ready, are decreasing (2019). A student score of Level 1 is defined by the Kansas Assessment Program as a student showing "a *limited* ability to understand and use the skills and knowledge needed for post-secondary readiness" (p. 2). Levels 2, 3, and 4 replace the word "limited" in the definition with

"basic," "effective," and "excellent," respectively. Table 1 includes the percentage in each performance area on the Kansas Assessment for ELLs. Additionally, ELL students in District A have not met projected growth on the Northwest Evaluation Association's (NWEA) Measures of Academic Progress (MAP). These same students have demonstrated a low grit score, or their belief that they have the skills and ability to be successful independently and can see tasks to completion even when difficult, over the past two years as measured by the Panorama Survey developed by Panorama Education (2018). If the district continues to operate using a pull-out model of instruction, it may be anticipated that similar results might be obtained, thus suggesting a change in the instructional model could potentially result in improved student achievement and student grit. In order to see an increase in academic achievement and a change in student grit scores, as well as language proficiency, a different model of ELL instruction was instituted at one middle school (School S) in the district.

Table 1

Percent in each Performance Category on Kansas Assessment for ELLs

Year	Level 1	Level 2	Level 3	Level 4
		Reading		
2015	30.58	41.37	20.06	2.47
2016	35.82	39.35	19.03	3.04
2017	40.02	36.61	16.81	2.67
2018	52.21	38.47	8.36	0.94
2019	61.57	32.03	5.64	0.74
		Mathematics		
2015	29.42	49.27	15.78	3.58
2016	38.33	42.46	14.82	3.88
2017	38.29	42.37	15.13	3.35
2018	47.56	41.23	9.99	1.19
2019	54.11	38.25	6.44	1.18

Note. Level 1 = Limited Ability; Level 2 = Basic Ability; Level 3 = Effective Ability; Level 4 = Excellent Ability. Adapted from "ELL Performance Levels" by Kansas Department of Education, 2018. www.ksde.org/datacentral

Statement of the Problem

Districts across the United States use different instructional models and types of program organization to meet the needs of ELLs from kindergarten through high school (National Clearinghouse for English Language Acquisition, 2019). Historically, in District A, ELL programming has operated as a pull-out instructional model, which has been described as the most expensive type of program model with the least amount of

effectiveness for student achievement (Ovando & Combs, 2012). When changing from one instructional model to another, it is important to analyze the differences in scores for ELLs, specifically in academic growth, English language proficiency, and grit scores before and after the implementation of a new model; however, no data have been collected that specifically examines the differences in academic growth, English language proficiency, and grit scores of ELLs before and after the implementation of a hybrid instructional model that blends many types of instructional models into one.

Purpose of the Study

Prior to the 2019-2020 school year, School S in District A utilized a pull-out instructional model for ELL students in the content areas of Mathematics, English Language Arts, and Social Studies. During these previous years, ELLs were in Science with native English-speakers. Beginning in the fall of 2019, a hybrid instructional model was implemented building-wide where ELLs were enrolled with native English-speaking peers in Mathematics, English Language Arts, and Social Studies and ELL teachers co-taught in Mathematics and Language Arts. This study was designed to examine the potential impact of a hybrid ELL instructional model on academic growth, English language proficiency, and grit scores of middle school ELL students in School S.

There were three purposes for this study. The first purpose was to examine differences in ELL students' academic growth before and after the implementation of the hybrid instructional model between 2017 and 2021. The second and third purposes were to examine the differences in ELL students' English language proficiency and grit scores before and after the implementation of the hybrid instructional model between the same years.

Significance of the Study

As the nation's population of non-English speaking students continues to increase, it is critical to explore effective ways to educate these students. This study may provide insight for the type of instructional model used for ELLs in middle schools in District A as well as other districts with similar demographics. Additionally, the results of this study could be of value to leadership in District A when recruiting and hiring new ELL teachers or creating professional development for ELL teachers. For example, District A may look at recruiting ELL teachers with a skill base in co-teaching and working within a push-in instructional model and/or provide training and professional development in co-teaching and push-in instruction if students show a significant improvement in scores after the implementation of the hybrid instructional model. This study may also contribute to the existing body of research related to ELL instructional programs and effective education practices for ELLs.

Delimitations

According to Lunenburg and Irby (2008), "delimitations are self-imposed boundaries set by the researcher on the purpose and scope of the study" (p. 134). The following delimitations were imposed on this study:

- This study used data from one suburban middle school in Kansas, serving sixth- through eighth-grades and only included scores of students identified as ELL.
- This study was limited to three measures: MAP scores for academic growth, Kansas English Language Proficiency Assessment (KELPA) scores for English language proficiency, and Panorama Survey for grit scores.

- The study included data from 2017–2021.

Assumptions

"Assumptions are postulates, premises, and propositions that are accepted as operational for purposes of the research" (Lunenburg & Irby, 2008, p. 135). Additionally, the assumptions lend support to the recommendations by providing meaning to the conclusions drawn in the study (Lunenburg & Irby, 2008). The following assumptions were made during this study:

- ELL students gave their best effort when taking assessments.
- ELL students answered questions truthfully when taking the Panorama Survey.
- Teachers administered the MAP assessments and KELPA according to the standardized directions provided.

Research Questions

According to Lunenburg and Irby (2008), "research questions (RQs)…are critical components of the dissertation" (p. 126). Research questions identify the crux of the study and the questions that remain unanswered in the literature (Lunenburg & Irby, 2008). The following research questions guided this study:

RQ1. To what extent is there a difference in ELL students' academic growth before and after implementation of a hybrid model?

RQ2. To what extent is there a difference in ELL students' English language proficiency before and after implementation of a hybrid model?

RQ3. To what extent is there a difference in ELL students' grit score before and after implementation of a hybrid model?

Definition of Terms

"Key terms need to be clarified if they are paramount to the study and referenced or used continuously throughout the dissertation" (Lunenburg & Irby, 2008, p. 118). The terms defined are included where there is a likelihood that readers outside the field of study will not know their meaning (Creswell, 2009). The following terms are defined for this study:

English Language Learner. A student whose first language is not English in pre-kindergarten through 12th-grade attending an English-speaking school in the United States. Sometimes the term English language learner can be referred to as English as a second language (ESL) learner, or English learner (EL).

Grit. A student's belief that they have the skills and ability to be successful independently and can see tasks to completion even when difficult (Panorama Education, 2015).

Hybrid ELL instructional model. An instructional model comprised of a combination of pull-out and push-in, with co-teaching and structured support for skills and language acquisition. This term was created by the researcher to be used in the study.

Kansas Assessment Program (KAP). The Kansas Assessment Program includes a variety of tests and other tools aligned to the Kansas Standards (Kansas Assessment Program, 2019). For the purpose of this study, the summative assessment scores are reported. Summative assessments are traditional tests typically administered near the end of a school year.

Kansas English Language Proficiency Assessment (KELPA). As part of the KAP, the KELPA assesses students on English Proficiency Standards. These standards were strategically designed to streamline the process of learning in English and meeting college-and-career-ready standards in academic subject areas by allowing students to gain English proficiency and learn other subjects at the same time. KELPA assessments are broken into four parts corresponding with the four domains reflected in the English Language Proficiency Standards: reading, listening, speaking, and writing (KAP, 2019). For the purpose of this study, KELPA will be the term used, although the test name altered from 2015-2019 (2015-2016 ELPA21; 2016-2017 K-ELPA; 2017-2018 KELPA2; 2018-2019 KELPA2).

Measures of Academic Progress (MAP). Created by Northwest Evaluation Association (NWEA), MAP is an adaptive computer test, which means every student gets a unique set of test questions based on responses to previous questions. The score received is used to measure a student's achievement level at different times of the school year and compute growth (NWEA, 2016). Within the MAP system are a plethora of assessments. School S utilized the MAP Growth Mathematics 6+ and the Reading Growth 6+ assessments.

Newcomer. A student who has been living in the United States for a relatively short amount of time and is non-English proficient or has limited-English proficiency (U.S. Department of Education, 2017).

Panorama survey. "This comprehensive survey covers 19 key topics from pedagogical effectiveness and school climate to student engagement and growth mindset"

(Panorama Education, 2018). The survey used for this study measures student social and emotional learning.

Pull-out model. A type of instructional model in which ELL students are pulled out of the general education classroom away from native English-speaking peers to receive instruction related to the content (Ovando & Collier, 1998).

Push-in model. A type of instructional model, sometimes referred to as immersion, in which ELL students are enrolled fully in the general education classroom with native English-speaking peers to receive instruction (Ovando & Collier, 1998).

RIT score. After each MAP test, each student receives a RIT score that reflects the student's academic knowledge, skills, and abilities. The RIT (**R**asch Un**it**) scale is a stable, equal-interval scale. Equal-interval means that a change of 10 RIT points indicates the same thing regardless of whether a student is at the top, bottom, or middle of the scale, and a RIT score has the same meaning regardless of grade-level or age of the student. Scores over time can be compared to tell how much growth a student has made (NWEA, 2016).

Sheltered instruction. A type of educational model in which a different set of curriculum materials or standards may be used for ELLs (Ovando & Collier, 1998).

Organization of the Study

This study is comprised of five chapters. The first chapter provided an introduction, the background of the study, statement of the problem, the purpose of the study, the significance of the study, delimitations, assumptions, research questions, and definitions of key terms. Chapter 2 is a comprehensive literature review which details the history of ELL education and federal policy in the United States, program models for

instruction of ELLs, characteristics of the adolescent English language learner, and best practices for teaching English language learners. Included additionally in chapter 2 is an examination of literature related to academic growth, language proficiency, and grit of ELLs. Chapter 3 provides a description of the methodology used in this study, which identifies the research design, selection of participants, measurement, data collection procedures, data analysis procedures, hypothesis testing, and limitations. A presentation of the findings of the study, including descriptive statistics, the results of the hypothesis testing, and a summary is presented in chapter 4. Finally, chapter 5 contains a summary of the study, proposes recommendations for future research, and concluding remarks.

Chapter 2

Review of the Literature

In this review of the literature, the researcher will describe the history of ELL education in the United States. Additionally, the researcher will outline federal policy related to ELLs which started in the 1960s and continued to be revised through the early 2000s. The program models for ESL instruction used in the United States will also be described. Next, the researcher will describe characteristics of the adolescent English language learner and best practices for teaching English language learners. Lastly, literature related to academic growth, language proficiency, and grit of ELLs will be examined.

History of ELL Education

The notion of English existing as the only language of American national identity is a fairly young ideal compared to the age of the country. This ideology emerged alongside new restrictive immigration policies and the development of free and compulsory schooling in the United States as a vast number of immigrants from non-English speaking Europe arrived on the nation's soil (Pavlenko, 2002). From the 1920s to the 1960s, American schools adopted English immersion policies as the main method of instruction for all, regardless of the level of English language proficiency (Colorin Colorado, 2010). Due to limited remedial services available, many language minority students were held at the same grade-level without promotion until English was mastered (Colorin Colorado, 2010). A non-native English speaker would be taught all courses from teachers speaking only English, often referred to as "sink or swim". There were no accommodations, such as use of a translation dictionary or specific programming to

provide structured support in the English language. These students were retained, or "held back," in grade levels until enough English was mastered for them to advance through the curriculum. The impact on these students was significant. Baker (2006) listed the negative consequences of sink or swim education:

> Listening to a new language demands high concentration. It is tiring, with a constant pressure to think about the form of the language and less time to think about curriculum content. A child has to take in information from different curriculum areas and learn a language at the same time. Stress, lack of self-confidence, 'opting-out,' disaffection and alienation may occur. (p. 219)

Additionally, there was a large delay, for one or more years, in the academic progress for these students from grade-level retainment. This sink or swim method of instruction for ELLs would last until 1963, when the first change occurred in the nation regarding bilingual instruction due to civil unrest in the nearby country of Cuba.

When Fidel Castro assumed the role as the communist leader in Cuba in 1959, droves of Cubans emigrated to the United States landing mostly in Florida and other southeastern states (Rusin, Zong, & Batalova, 2015). This first wave of Cuban immigrants was vehemently opposed to Castro's communist regime, strongly supported the democracy, and exercised their civic duty in the free elections the previous leader, Fulgencio Batista, provided. As Castro aligned himself and Cuba with the communist run Soviet Union, middle- and upper-class Cubans immigrated to the southeastern region of the United States, leaving Cuba's poor behind to be oppressed for many more decades. Migration Policy Institute indicated that between 1950 and 1960 the number of Cuban immigrants in the United States had increased, rising from 71,000 to 163,000 immigrants

(Rusin, Zong, & Batalova, 2015). Miami-Dade County, Florida initiated the first large-scale government-sanctioned bilingual program in 1963, which quickly became known as an unofficial model for the United States (Everett-Haynes, 2008). Intended as a temporary model for the Cuban immigrants to retain their language and culture while waiting for the Castro regime to fall, Coral Way Elementary School in Miami, Florida, instituted conversational Spanish instruction before adding dual language instruction to its curriculum for both English and Spanish speakers (Everett-Haynes, 2008). As the southeastern part of the United States began large scale change, Teachers of English to Speakers of Other Languages (TESOL) was founded (TESOL International Association, 2020). From 1963 to 1966, the TESOL organization provided professional development for educators interested in teaching ELLs (TESOL International Association, 2020). Changing its name to TESOL International Association in 2011, the organization revised its vision statement to read "TESOL is the trusted global authority for knowledge and expertise in English language teaching" (TESOL International Association, 2020).

Federal Policy and ELLs

From 1968 to 1998, federal policies and court cases created change for non-English speakers in public schools. The Bilingual Education Act (BEA), passed in 1968 under Title VII of the Elementary and Secondary Education Act (ESEA), was the first federal recognition that students with limited-English speaking abilities have unique educational needs (Stewner-Manzanares, 1988). There were three basic components of the act: (a) local bilingual education grants, (b) research and support activities, and (c) teacher development and training (Osorio-O'Dhea, 2001). More specifically, this act was written with the notion that federal funding should be provided to bilingual programs

seeking to support those needs (Stewner-Manzanares, 1988). Districts with a high population of low-income students were to be prioritized to receive the funding in the form of competitive grants which could be used in any of the following ways: resources for educational programs, training for teachers and teacher aides, development and dissemination of materials, and parent involvement projects (Garcia & Sung, 2018). The BEA did not specify what type of programming was to be used, so in turn, school districts that received funding were given autonomy to develop programming as they pleased. In 1974, amendments were made to the BEA largely due to a Supreme Court ruling.

Lau v. Nichols (1974) was one Supreme Court case that amended the BEA. This class-action suit brought against the San Francisco school district claimed that over 1,000 Chinese students were being denied an equal education due of their limited-English speaking skills (*Lau v. Nichols*, 1974). The lower courts disagreed that equal education was being denied but the Supreme Court overruled, arguing that the same facilities, textbooks, teachers, and curricula do not constitute equal education (Stewner-Manzanares, 1988). The *Lau v. Nichols* (1974) ruling established that schools within the nation had an obligation to address the language barrier that prevented ELLs from fully participating in educational programs. A year later, the U.S. Department of Health, Education, and Welfare issued the Lau Remedies, which helped translate the legal obligations into methods of instructional practices for ELLs (Crawford, 2006).

In the 20 years following *Lau v. Nichols* (1974), multiple amendments were made to the BEA. Some amendments aimed to define "Bilingual Education Program" as one that provided instruction in English and the student's native language in order to allow

effective progression through the educational system. Other amendments aimed to define the program's goal as preparing students with limited-English speaking abilities to participate in the classroom with native English-speaking peers while at the same time maintaining the native language and culture of the student (Stewner-Manzanares, 1988). Additionally, more amendments to BEA were written to provide support to school systems by creating regional support centers of consultants and trainers, and building capacity by providing funds to school districts' efforts to expand curricula, staff and research for bilingual programs (Stewner-Manzanares, 1988). In 1978, additional amendments to Title VII called attention to the intentionally transitional nature of native language instruction, allowed enrollment of English-speaking students in bilingual programs, and expanded eligibility for students defined with limited-English speaking abilities to include students who were limited-English proficient. Public Law 95-561 (1978) defined limited-English proficient as students with "sufficient difficulty speaking, reading, writing, or understanding the English language to deny such individuals the opportunity to learn successfully in classrooms where the language of instruction is English" (p. 127).

The 1980s brought additional reauthorization of the BEA and federal court decisions. Researcher de Jong (2011) referenced amendments in 1984 and 1988 indicating programs should focus on English language acquisition, rapid mainstreaming into all-English education, and funding for non-bilingual programs. The outcome of *Castañeda v. Picard* (1981) established the "Castañeda Test" which determined that school ELL programming must include the following criteria: (a) Theory: The school must pursue a program based on an educational theory recognized as sound or, at least, as

a legitimate experimental strategy; (b) Practice: The school must actually implement the program with instructional practices, resources, and personnel necessary to transfer theory to reality; and (c) Results: The school must not persist in a program that fails to produce results. The subsequent year, *Plyler v. Doe* (1982) established that under the 14th Amendment of the United States Constitution, the state did not have the right to deny a free public education to undocumented immigrant children.

In the mid-1990s, the BEA was reauthorized with amendments focused on introducing new grant categories and setting up preference to programs promoting bilingualism, including indigenous languages (Easton Country Day School, n.d). In a report to Congress, Stedman (1994) identified that the new grant categories were competitive for those who are in different stages of improving instruction for those with limited-English proficiency. Additionally, programs receiving grant monies for bilingual education must show field-initiated research while maintaining instructional materials in native languages that are not readily available (Stedman, 1994). Lastly, the reauthorization eliminated the previous teacher training with new training programs including "1) training programs for all teachers, 2) bilingual education teachers and personnel, and 3) bilingual education career ladder" (Stedman, 1994, p. 21).

Massive reform to public education occurred in 2001 when ESEA (1965) was reauthorized to the No Child Left Behind Act (NCLB) and included specific language to address bilingual education (NCLB, 2001). Titles I and III of the NCLB (2001) mandated two types of assessments for students who were ELLs: academic content and English language proficiency. In accordance with the new Title I, each state was required to include "limited-English proficient" students into its academic assessment system and

assess them in a valid and reliable manner. Additionally, each state education association needed to create measurable achievement objectives to ensure ELLs made adequate yearly progress (AYP) in their development and attainment of English proficiency, while meeting the same statewide academic standards in content areas as those set for native-English speakers (NCLB, 2001).

The most recent reform to public education affecting ELLs was the replacement of NCLB in 2015 to Every Student Succeeds Act (ESSA) which was a reauthorization of the ESEA of 1965 (ESSA, 2015). ESSA reaffirmed equal opportunity to all U.S. students (Transact, 2017). Title I and III under ESSA both provided funding for ELLs. Title I allocated funds to improve basic programs and ensured economically and socially disadvantaged students had equal opportunity for access to a quality education (ESSA, 2015). Title III provided funding to support ELL students and their families and had three main requirements related to ELLs: (a) provide programs for ELLs to attain English proficiency and acquire content knowledge; (b) provide professional development to teachers and school leaders in the area of educational strategies to best meet the academic and language needs of ELLs; and (c) deliver activities that promote ELL parent, family, and community engagement (ESSA, 2015).

Program Models of ESL Instruction in the United States

ELLs were expected to learn alongside native English-speaking peers due to lack of resources and federal English immersion policies in what was described as “sink or swim.” ELLs often were retained in grade levels and courses until they learned enough English on their own to finally master content standards. As policy changed, different models of instruction emerged.

ESL, also referred to as ESOL (English to speakers of other languages), is an important part of any bilingual program (Ovando & Collier, 1998). ESL pullout is the most expensive of all program models. Chambers and Parrish (as cited in Ovando & Collier, 1998) described the pullout model as one where extra resource teachers, trained in second language acquisition, educate ELLs in a self-contained class with limited access to the full curriculum. This model promoted a social stigma that the native language of the student was a problem that needs to be remedied. Ovando and Collier (1998) identified many problems that ESL pullout teachers have to combat: lack of time to plan individual content lessons for varying ages of students served, access to a designated space sufficient for learning, and having to travel to multiple schools in a week.

ESL content, also called sheltered instruction or content-based instruction, is a model where students are learning language and academic content together (Ovando & Collier, 1998).

> The basic assumption underlying [sheltered instruction] is that in many academic contexts, the content of instruction is not the language per se (vocabulary, grammar; language functions, etc.); rather the content is derived from the subject matter of the school curriculum (history, science, etc.). (Young & Hadaway, 2006, p. 30)

Young and Hadaway (2006) expressed culturally that the majority of ELLs experience this type of situation because they are taught grade-level specific content and expected to master content standards.

Newcomer programs serve students, especially secondary students, in school districts that have not experienced much cultural or linguistically diverse populations (Herrera & Murry, 2011). Boyson and Short (as cited in Herrera & Murry, 2011) shared that newcomer programs are a response to the increase in secondary level immigrants who have varying levels of proficiency in literacy skills in their native language. "Some newcomer programs serve culturally and linguistically diverse students for as long as four years, others for as little as forty-five days" (Herrera & Murry, 2011).

Characteristics of an Adolescent ELL

Adolescent ELLs have unique characteristics that set them apart from other adolescent learners and other age groups. The assumption sometimes is made that ELLs are newcomers to the United States, while the majority of students considered ELL are born in the U.S. and are U.S. citizens (Romo, Thomas, & Garcia, 2018). "Overall, about one in five children now live in an immigrant family" (Garcia, Jensen, & Scribner, 2009; Landale, Thomas, & Van Hook, 2011, as cited in Romo et al., 2018, p. 8). The parents of ELLs have not experienced high levels of formal education but tend to have a strong work ethic and want to support their children through school (Romo et al., 2018). The IRIS Center of Vanderbilt University in Tennessee reported that, as a group, ELLs nationwide spoke more than 400 languages with the majority of them speaking Spanish. The top five languages—Spanish, Vietnamese, Hmong, Chinese, and Korean—made up 95% of the different languages spoken (IRIS Center, n.d). Many ELLs come to school in the United States with some informal English proficiency but lack the academic language in English to be successful in school. Approximately 72% of eighth-grade ELLs scored

below the basic category on reading and math achievement tests, while only about 26% of non-ELL peers scored in the same category (U.S. Department of Education, 2019).

Economic circumstances also play a part in ELL students' ability to be successful in learning. Hispanic ELLs, known to be the majority of ELLs in the nation, are most likely to have a low socioeconomic status, with American Indian and Black ELLs following closely behind (Romo et al., 2018). Romo et al. (2018) found that white and Asian ELLs tend to have a higher socioeconomic status. "Teachers need to keep in mind that these kids are very diverse, and we can't treat them as though they were all the same or that they learn the same" (Baca, n.d.). Because of the diversity ELLs bring to the classroom, teachers need to adapt regularly for each individual learner.

Researchers and those who study child development might argue that a younger child would find it easier to learn a second language simply because children learn to speak beginning very early in life (Romo, et al., 2018). Contrary to this thought, adolescents and adults are better at learning a second language because they have a more highly developed skill level (Romo, et al., 2018). Being able to connect new vocabulary learned in English to known vocabulary in a person's native language makes it easier to comprehend and learn. "A student's first language might support his or her understanding of a second" (Romo et al., 2018, p. 6).

Best Practices for Teaching ELLs

In the decades since *Lau v Nichols* (1974), school districts and researchers have tried to identify programs and strategies for educating ELLs with much research resulting in similar findings (Horwitz et al., 2009; Goldenberg & Coleman, 2010; Morgan, 2017; Genesee, Lindholm-Leary, Saunders, Christian, 2005). These findings included a shared

vision and commitment to reform, leadership and advocacy for ELLs, explicit academic goals with ongoing monitoring and assessment, and effective professional development for teachers (Horwitz et al, 2009; Goldenberg & Coleman, 2010; Morgan, 2017; Genesee et al., 2005). Schools where ELLs had higher achievement levels "appear to be the result of focused, sustained, and coordinated work among educators committed to the educational success of these students" (Goldenberg & Coleman, 2010, p. 158). Ensuring that everyone within a school system understands and believes in the vision and stays focused on achieving at high levels was critical to starting and sustaining reform. Goldenberg and Coleman (2010) identified that improving districts not only have a mission to reform ELL achievement, but also had a district-wide reform initiative typically centered around literacy and reading achievement.

While creating a shared vision and commitment for reform, leaders must also advocate for their teachers and be committed to providing time for teachers to collaboratively plan effective instruction with peers (Bell & Baecher, 2012). Collaboration starts when common planning time is provided for ELL and general education teachers to regularly confer about instruction and analyze data related to student mastery of curriculum standards. Bell and Baecher (2012) argued that collaboration between ELL and general education teachers is more important than the instructional model used. Furthermore, survey data from teachers indicated that if adequate common planning time and support from leaders were provided, teachers would prefer to work in a co-teaching setting (Bell & Baecher, 2012). York-Barr, Ghere, and Sommerness (2007) described several ways that ELL and general education teachers can work together to support ELLs within the general education setting. ELL teachers spent

time collaborating with general education teachers by planning instruction for ELL support, co-teaching in the classroom, and reflecting on their practices and student data (York-Barr, Ghere, & Sommerness, 2007). Their findings included increased collegiality amongst faculty members as well as increased achievement for ELLs.

In collaborative planning, ELL and general education teachers must be intentional about using effective instructional strategies. Direct and interactive instruction were more effective than process-based, or whole language, in increasing the reading and writing skills of ELLs (Genesee et al., 2005). "The use of cooperative learning and high-quality exchanges between teachers and pupils" promoted the academic success of ELLs (Genesee et al., 2005, p. 376). Researchers who studied process-based approaches identified that exposing students to a literary-rich classroom was not sufficient for students to acquire the specific skills for reading and writing (Genesee et al., 2005). Keller and Silva, as well as de la Luz Reyes (as cited in Genesee et al., 2005) argued that it is necessary for ELLs to be taught skills and subskills explicitly if they are to become efficient and effective readers and writers. In addition, Horowitz et al. (2009) attempted to identify the steps, programs, or procedures implemented in districts with rising ELL achievement. Comprehensive planning and adoption of language development strategies for ELLs was one strategic practice recommended as a result of this study. One commonality within these ELL instructional strategies was critical:

> …an explicit focus on supporting academic language acquisition among ELLs, regardless of the second language acquisition model being used (e.g., bilingual, ESL, dual language, etc.). The literacy initiatives launched by improving districts incorporated explicit instruction in vocabulary and reading comprehension, as a

> key lever for improving overall student achievement in the district and ELL achievement in particular. (Horowitz et al., 2009, p. 5)

Once schools have set explicit goals that support the mission, ongoing monitoring and assessment of student achievement of established goals must occur. Horowitz et al. (2009) found that districts in which ELLs were improving used student achievement data as a central part of their decision-making process for instructional decisions. "In particular, these districts took steps to give teachers and school leaders access to accurate, timely student measures that could be used to help them diagnose and respond to individual student needs" (Horowitz et al., 2009, p. 6). Student measures of progress towards a goal does not always refer to a standardized, high-stakes assessment. Referred to as formative assessments, ongoing monitoring of student progress towards a goal over time in different capacities, such as a small writing task, or a short reading passage must take place to continually gauge the effectiveness of goal-directed efforts (Goldenberg & Coleman, 2010).

Professional development in educational systems is used to provide faculty members opportunity to learn and apply new skills to become more effective in their careers. Horowitz, et al. (2009) indicated professional development (PD) plays an integral role in schools. Higher quality PD programs in districts with improving ELL achievement were based on research available in literacy and ELL instruction, sustained and long-term, and included "hands-on, site-based strategies such as lesson or technique modeling, coaching, and providing feedback based on close monitoring of practice" (Horowitz et al., 2009, p. 6). Additionally, these programs were available to all subject area teachers and not just teachers of ELLs, provided training to principals and other

district leaders, and trained attendees in the usage of student data (Horowitz et al., 2009). Researchers recommended that professional development for districts needed to be linked back to the district's mission and reform initiatives and build consistency across buildings.

> Educators need more than an array of specific methods or activities that they can draw on when planning literacy or academic subjects. They need comprehensive frameworks for selecting, sequencing, and delivering instruction over the course of an entire year and from grade to grade. (Goldenberg & Coleman, 2010, p. 157)

Academic Growth, Language Proficiency, and Grit of ELLs

As the population of ELLs in public schools continues to increase, more research is starting to emerge on the disparities between academic achievement and growth of ELLs compared to their non-ELL peers. "Compared to their monolingual peers, ELLs tend to perform lower in academic achievement and have negative outcomes in all education subjects, particularly in STEM [Science, Technology, Engineering, and Math] education" (Maarouf, 2019, p. 84). Several studies indicated that the academic success of ELL students greatly depends on moderate- to high-proficiency level of literacy in the student's native language (Cook, Boals, & Lundberg, 2011; Gándara & Orfield, 2010; Lindholm-Leary, 2012; Soland & Sandilos, 2021). Kieffer (as cited in Polat, Zarecky-Hodge, & Schreiber, 2016) compared achievement trajectories in reading and mathematics and discovered that ELLs who entered kindergarten with high English proficiency caught up with their English-speaking peers on the national average by 1st grade and maintained that achievement through 8th grade. On national tests over the testing period between 2003 and 2011, the growth patterns of non-ELL's reading scores

were positively increasing while ELL's growth patterns varied both upward and downward during the same time frame (Polat et al., 2016). In mathematics, Polat et al. (2016) found that ELLs' average scores were lower than their non-ELL peers for Grade 4 and Grade 8 at every year point from 2003 to 2011. Additionally, results of their growth trajectories appeared to be quite different. "The increase in the average mathematics scores of the fourth-grade non-ELL group was twice that of the ELL group while eighth-grade non-ELL's group mean was four times bigger than the mean of the ELL counterparts" (Polat et al., 2016, p. 545).

Student language proficiency can be influenced by many factors when a student enters an ELL program, including age of the student, proficiency level in the native and target language as well as the type of program used for ELL instruction (Artigliere, 2019; Gándara & Orfield, 2010; Lindholm-Leary, 2012, 2017). In general, it takes ELLs three to five years to develop oral proficiency and four to seven years to develop academic English proficiency (Cummins, 1981; Hakuta, Butler, & Witt, 2000). Dabach (2014) found it was essential to the ELL identity whether they were educated alongside native speakers as opposed to being taught in a pull-out environment, segregated from native speakers. ELL students, regardless of their level of language, have a lower personal perception of their ability, self-esteem, and self-efficacy/grit when segregated from native speakers (Dabach, 2014; Soland & Sandilos, 2021).

Banse and Palacio (2018) found that the relation between grit and English Language Arts (ELA) achievement was stronger for ELLs compared to non-ELLs in high-care, high-control classrooms. "A highly caring or well-organized classroom may provide a context that specifically bolsters ELLs' assets—such as their grit—and by

extension, their ELA achievement" (Banse & Palacios, 2018). Generally speaking, students demonstrating more grit may have better academic outcomes (Duckworth, Peterson, Matthews, & Kelly, 2007) and thus, highly caring teachers who can leverage ELL students' grit during assessments may yield higher student achievement (Banse & Palacios, 2018). Caprara et al. (2008) found that as students move through school, growth in mathematics and reading over time is positively related to growth in self-efficacy and grit. A conclusion can be made that improving self-efficacy and grit in ELL students might be useful in closing the achievement gap between ELLs and non-ELLs.

Summary

This chapter outlined the history of ELL education in the United States. Additionally, federal policy related to ELL education was reviewed. Program models for ESL instruction were described and characteristics of an adolescent ELL were identified. Best practices for ELL instruction were discussed. Lastly, literature related to academic growth, language proficiency, and grit of ELLs was examined. Chapter 3 will describe the methodology employed for the study of data related to a hybrid ELL instructional model for middle school students and includes the research design, selection of participants, measurement instruments, data collection procedures, data analysis, and limitations of the study.

Chapter 3

Methods

This study was designed to examine the potential impact of a hybrid ELL instructional model on academic growth, English language proficiency, and grit scores of middle school ELL students in School S. This chapter describes the methodology employed for the current study. The research design, selection of participants, measurement instruments, data collection procedures, data analysis, and limitations of the study are included.

Research Design

A quantitative study, using a quasi-experimental design comprised of archival data, was utilized for this study. According to Creswell (2018), this design is appropriate when archival data is used from tests that have already been administered, and a comparison of two independent groups takes place. For the purpose of this study, data was compared pre-and post-implementation of a hybrid ELL instructional model to examine the impact of the model. There were three main dependent variables of the study: ELL students' academic growth, English language proficiency, and grit scores. The independent variable of the study is implementation status of the hybrid instructional model, pre-and post-implementation.

Selection of Participants

The population of the study included middle school students identified as English language learners in sixth- through eighth-grade in a suburban school district. Purposive sampling was used to identify participants. Purposive sampling, as defined by Lunenburg and Irby (2008), is sample selection based on the researcher's experience or knowledge

of the group to be sampled and its fit to the study. Sixth-, seventh-, and eighth-grade students enrolled at School S with fall and spring NWEA MAP Mathematics and Reading Assessment scores, KELPA scores, and Panorama data were included as the samples of the study over the course of five years. Student participation in NWEA MAP Mathematics and Reading Assessment varied from 2016–2021 due to absenteeism. The sample size of students taking the NWEA MAP Reading and Mathematics assessments were 889 and 895, respectively. There are no student growth scores for 2019-2020 due to COVID-19 when schools were closed by the governor in March 2020 for the remainder of the school year. Student participation in KELPA created a sample size of 492. The sample size of students taking the Panorama survey was 365. There are no student grit scores from 2016 for Panorama because at that time the score was labeled "student self-efficacy" and changed to "grit" in the 2017-2018 school year.

Measurement

Academic growth. ELL students' academic growth was measured by NWEA MAP Assessment. The MAP Assessment provides feedback about student academic growth over the school year in both mathematics ability and reading ability. ELL students take the assessment in the fall and spring of each academic school year.

More specifically, the MAP Growth Mathematics 6+ assessment was used to measure growth in mathematics ability. In the mathematics assessment, there are four domains measured using approximately 52 questions. The first domain, entitled Operations and Algebraic Thinking, includes expressions, equations, and using functions to model relationships. The second domain, entitled The Real and Complex Number Systems, includes ratios, proportional relationships, performing operations, and extending

and using mathematical properties. The third domain is Geometry, which includes geometric measurement and relationships, as well as congruence, similarity, right triangles, and trigonometry. The last domain is Statistics and Probability, which includes interpreting categorical and quantitative data, as well as using sampling and probability to make decisions (NWEA, 2017).

MAP Growth Reading 6+ assessment was used to measure growth in reading ability. There are three domains in the reading assessment measured using approximately 40 questions. The first domain is Literature, which includes key ideas, details, and craft and structure related to literature. The second domain is Informational Text, which includes key ideas, details, and craft and structure related to informational text. The third and last domain is Vocabulary Acquisition and Use, which includes context clues and reference, and word relationships and nuance.

Both MAP reading and mathematics are untimed, but most students are able to finish a test within a 60-minute test session. Additionally, the MAP assessment is adaptive, meaning every student gets a unique set of test questions based on responses to previous questions. As students answer questions correctly, the questions adapt and become more difficult. As students answer questions incorrectly, the questions become slightly easier. The score reported at the end of the assessment is used to measure a student's achievement level at different times of the school year and compute growth. The score is linked to a set of content standards at the student's instructional level, rather than what they have mastered at the end of a school year like a summative assessment (NWEA, 2016). The MAP assessment uses a Rasch Unit scale (RIT) to interpret test scores (NWEA, 2011). Lord and Novick and Rasch (as cited in NWEA, 2019) indicated

"development of the RIT scale was guided by item response theory (IRT) that rests on the relationship between student achievement and item characteristics" (p. 53). The RIT scale is an equal-interval scale with scores ranging from 100 to 350. "Using the RIT scale to report test results makes it possible to follow a student's proficiency status across time, interpreted as growth, across administrations and years" (NWEA, 2019, p. 53). There are composite RIT scores rendered for the overall mathematics and reading assessments. Additionally, sub-scale RIT scores are provided for domains that are assessed in each content area. A higher RIT score will indicate higher level skills that a student is ready to learn, potentially higher than the grade-level in which a student is enrolled. A lower RIT score will indicate a lower skill set that a student is ready to learn, potentially lower than the grade-level in which a student is enrolled.

Validity and reliability of MAP growth. Validity is the degree to which an instrument measures what it is intended to measure (Lunenburg & Irby, 2008). NWEA MAP reports validity evidence in three ways; evidence based on test content, evidence based on other variables, and evidence related to internal structure. Egan and Davison's 2017 external alignment study (as cited in NWEA, 2019) found that, on average 97.4% of test items in reading, language, and mathematics were aligned to the Common Core State Standards from kindergarten through 12th-grade (NWEA, 2019). Evidence related to other variables include concurrent validity and classification accuracy statistics. The MAP Growth Technical Manual (2019) indicates "concurrent validity is expressed in the form of a Pearson correlation coefficient between the total content area RIT score and the total score of another established and validated test designed to assess the same content area" (p. 94). Classification accuracy statistics provide evidence of the accuracy of

MAP's ability to correctly predict student performance on a state summative assessment (2019). Table 3 summarizes concurrent validity and classification accuracy in reading. MAP Growth for reading obtained validity scores in the upper 0.70s for concurrent validity and scores in the low 0.80s for classification accuracy for sixth- through eighth-grade (NWEA, 2019). Table 3 summarizes concurrent validity and classification accuracy in mathematics. MAP Growth for mathematics obtained validity scores in the mid-0.80s for concurrent validity and upper 0.80s for classification accuracy for sixth- through eighth-grade (NWEA, 2019).

Table 2

Reading Average Concurrent Validity (r) and Classification Accuracy (p)

Grade	N	*r*	*p*
6	163,305	0.79	084
7	154,280	0.79	0.83
8	138,007	0.78	0.82

Note. N=number of test events. Adapted from "MAP® Growth™ Technical Report," by Northwest Evaluation Association, 2019.

Table 3

Mathematics Average Concurrent Validity (r) and Classification Accuracy (p)

Grade	N	*r*	*p*
6	162,024	0.84	0.88
7	151,649	0.84	0.88
8	133,127	0.83	0.87

Note. N=number of test events. Adapted from "MAP® Growth™ Technical Report," by Northwest Evaluation Association, 2019.

Lunenburg and Irby (2008) stated that "reliability is the degree to which an instrument consistently measures whatever it is measuring" (p. 182). The MAP Growth reports reliability in three ways; test-retest reliability (i.e., how reliable the test is when given to the same group of students from one administration to the next), marginal reliability (i.e. how well do the test items measure its constructs consistently), and score precision based on standard error of measure (SEM; NWEA, 2019). The test-retest reliabilities for mathematics and reading in sixth- through eighth-grade are in the low 0.90s and mid-0.80s, respectively (NWEA, 2019). The marginal reliability by grade for

reading in sixth-, seventh-, and eighth-grade are all 0.957 (NWEA, 2019). The marginal reliability for mathematics for Grades 6 through 8 is on average, 0.973 (NWEA, 2019). Tables 4 and 5 outline the reliabilities by grade and subject area.

Table 4

Test-Retest with Alternate Forms Reliability by Grade

Grade	Fall 2016 – Winter 2017		Spring 2017 – Fall 2017		Winter 2017 – Spring 2017	
	N	Reliability	N	Reliability	N	Reliability
Reading						
6	281,851	0.857	239,809	0.856	282,554	0.859
7	270,295	0.855	235,353	0.854	267,978	0.856
8	261,713	0.852	86,688	0.836	252,876	0.851
Mathematics						
6	293,312	0.905	244,552	0.916	291,348	0.908
7	276,811	0.915	236,430	0.925	274,727	0.917
8	268,597	0.919	80,827	0.915	259,051	0.920

Note. N=number of test events. Adapted from "MAP® Growth™ Technical Report," by Northwest Evaluation Association, 2019.

Table 5

Marginal Reliability by Grade

Grade	N	Reliability	Mean SEM
	Reading		
6	1,374,250	0.957	3.4
7	1,329,342	0.957	3.4
8	1,288,335	0.957	3.4
Grade	N	Reliability	Mean SEM
	Mathematics		
6	1,414,749	0.970	3.0
7	1,356,673	0.974	3.0
8	1,301,540	0.976	3.0

Note. N=number of test events; SEM = Standard Error Measure; Adapted from "MAP® Growth™ Technical Report," by Northwest Evaluation Association, 2019.

When reporting score precision, The MAP Growth Technical Report (2019) states "the MAP Growth adaptive test algorithm selects the best items for each student, producing a significantly lower SEM than fixed-form tests" (pg. 89). According to Kingsbury and Hauser in a 2004 study (as cited in NWEA, 2019), "MAP Growth tests yield ability estimates with SEMs that are less than .30 of a typical large sample standard deviation" (pg. 89).

English Language Proficiency. ELL students' English language proficiency was measured by Kansas English Language Proficiency Assessment (KELPA). The assessment measures English language proficiency in four domains: listening, reading, writing, and speaking. The overall proficiency score is reported as 1, meaning Not

Proficient, 2, meaning Nearly Proficient, or 3, meaning Proficient. A student must score a 4 or 5 in all four domains to be considered Proficient. Students scoring in the 10th percentile or below would score a 1. Students scoring between the 11th and 25th percentile would score a 2. Students scoring between the 26th and 50th percentile would score a 3. Students scoring between the 51st and 75th percentiles would score a 4. A student who scores the maximum points would score a 5. For Grades six through eight, there are 80 total assessment questions. All 25 listening and reading questions are machine scored. The writing questions include 17 machine scored questions and three educator scored questions. All ten of the speaking questions are educator scored. The minimum and maximum scale-scores vary for each of the four domains. Table 6 shows the scale-score descriptive statistics for listening, reading, speaking, and writing for Grades 6 through 8.

Table 6

Scale-Score Descriptive Statistics for Listening, Reading, Speaking and Writing

Grade	M	SD	Min	P_{10}	P_{25}	P_{50}	P_{75}	P_{90}	Max
					Listening				
6	539.5	70.0	357	421	496	556	593	612	630
7	556.4	70.5	355	435	527	585	608	622	638
8	573.0	73.1	291	440	545	602	625	629	645
					Reading				
6	537.2	68.4	387	450	480	531	593	633	705
7	550.5	72.0	383	457	497	549	603	656	712
8	576.3	78.8	374	466	505	581	648	678	715
					Speaking				
6	547.1	68.8	318	473	524	559	592	616	649
7	558.3	67.5	325	491	535	571	604	631	656
8	565.4	71.8	322	489	536	575	612	633	661
					Writing				
6	534.2	62.2	341	449	496	541	578	608	683
7	551.8	65.0	339	457	515	562	601	624	692
8	576.0	67.0	342	475	545	585	625	651	706

Note. P_{10}, P_{25}, P_{50}, P_{75} and P_{90} – 10th, 25th 50th, 75th, and 90th percentiles, respectively; Adapted from "Kansas English Language Proficiency Assessment-2; Technical Manual Analysis Addendum," by Kansas Department of Education, 2019.

Validity and reliability of KELPA. The validity of the internal structure of KELPA was reported using differential item functioning, according to the KSDE KELPA Technical Manual Analysis Addendum (2019) and describes it as the following:

> Differential item functioning (DIF) analyses evaluate items for potential bias. Large DIF is identified by a Nagelkerke R^2 change greater than 0.070 and DIF test is significant. Moderate DIF has a Nagelkerke R^2 change between 0.035 and 0.070 and DIF test is significant. (p. 25)

A large or moderate DIF could mean the item is potentially biased. For Grades 6 through 8, only one item came back with moderate DIF for gender in only the reading test (KSDE, 2019). All other DIF values were zero for gender and race in the other sub tests of the KELPA for Grades 6 through 8 (KSDE, 2019). No other validity information was available.

The reliability of the listening and reading tests have lower test coefficient alpha than the speaking and writing tests. The KSDE KELPA Technical Manual Addendum (2019) indicates that this lower reliability is probably due to less polytomous items being included in the speaking and writing tests than the listening and reading tests. Regardless, for Grades 6 through 8, the test coefficient alphas of listening and reading domains are both quite high, with both domains at 0.87; and the speaking and writing domains' reliability test coefficient alphas are 0.95 and 0.91, respectively (KSDE, 2019). Table 7 shows the test coefficient alpha reliability from Kindergarten through 12th-grade.

Table 7

KELPA Test Coefficient Alpha Reliability from K through 12

Grade	Listening	Reading	Speaking	Writing
K	0.78	0.77	0.94	0.86
1	0.76	0.85	0.90	0.90
2-3	0.84	0.86	0.92	0.90
4-5	0.87	0.88	0.93	0.90
6-8	0.87	0.87	0.95	0.91
9-12	0.83	0.89	0.97	0.91

Note. Adapted from "Kansas English Language Proficiency Assessment-2; Technical Manual Analysis Addendum," by Kansas Department of Education, 2019.

Grit. ELL students' grit scores were measured by the grit subscale in the Panorama Survey. The survey is used for students to self-assess in the areas of Coping with Anxiety, Emotional Regulation, Grit, and Social Awareness. The notion of grit was made popular by research of Dr. Angela Duckworth in her book Grit: The Power of Passion and Perseverance (2016). Panorama Education (2015) consulted with Dr. Duckworth and developed a revision to her original grit scale that described grit as "students' ability to persevere through setback to achieve important long-term goals" (p. 13). There are six questions in the grit subscale. Students rank themselves using a five-point Likert scale with options of "Almost Never, Once in a While, Sometimes, Frequently, Almost Always," scored one through five respectively. Scores from the grit subscale are averaged. An average of 3.0 or higher in the area of grit indicates a skill strength for the student. An average score of 2.9 or below indicates a weakness in the area grit. See Appendix A for a complete list of questions related to grit.

Validity and reliability of Panorama survey. Panorama Education aimed to be transparent in its view of validity. The Validity Brief referenced a work of Messick in 1995 (as cited in Panorama Education, 2015) saying "we view 'validation' of a survey scale as an ongoing process" (p. 4), indicating there is not a validated survey in existence despite other developers claims. The reliability of Panorama is assessed through coefficient alpha, and the coefficient alpha for every subscale, including grit, is .70 or greater (Panorama Education, 2015). Table 8 shows the reliability and model fit for grit subscale.

Table 8

Reliability and Model Fit for Grit Subscale

	Sample 1	Sample 2
Model fit χ^2 (df = 9)	25.68	54.53
p	.002	0
RMSEA estimate (90% CI)	.033 (.018, .048)	.057 (.043, .072)
CFI	.996	.987
Coefficient α (90% CI)	.75 (.73, .77)	.78 (.76, .80)
Standardized factor loadings		
Item 1	0.695	0.715
Item 2	0.61	0.628
Item 3	0.628	0.672
Item 4	0.531	0.509
Item 5	0.695	0.713
Item 6	0.588	0.653

Note. Sample 1 included students from a large diverse high school in the southeastern United States and Sample 2 included students from a large diverse high school in the southwestern United States. Adapted from "Validity report: Panorama student survey," by Panorama Education, (2015). Retrieved from https://panorama-www.s3.amazonaws.com/files/panorama-student-survey/validity-brief.pdf

Data Collection Procedures

The researcher requested to conduct research from District A's assessment department on June 22, 2022 (see Appendix B) and was approved pending university approval. Subsequently, the researcher submitted the Internal Review Board (IRB) form to Baker University on June 22, 2022 (see Appendix C) and was approved on July 1,

2022 (see Appendix D). After all 2020-2021 tests had been completed and sent to District A from the Kansas Department of Education, the Director of Curriculum and Assessment for District A collected the archival data and provided them to the researcher on July 21, 2022 in a Microsoft Excel spreadsheet.

Data Analysis and Hypothesis Testing

RQ1. To what extent is there a difference in ELL students' academic growth before and after implementation of a hybrid model?

H1. There is a statistically significant difference in ELL students' reading growth before and after implementation of a hybrid model.

H2. There is a statistically significant difference in ELL students' math growth before and after implementation of a hybrid model.

Two independent-samples *t*-tests were conducted to address the two hypotheses in RQ1. The mean of the scores on the MAP Reading and MAP Math tests before the intervention was compared to the mean of the scores on the tests after the intervention. An independent-samples samples *t*-test was chosen for the hypothesis testing since it examines the mean difference between two mutually exclusive independent groups, and both means of two groups are continuous variables. The level of significance was set at .05. When appropriate, an effect size was reported.

RQ2. To what extent is there a difference in ELL students' English language proficiency before and after implementation of a hybrid model?

H1. There is a statistically significant difference in ELL students' reading proficiency before and after implementation of a hybrid model.

H2. There is a statistically significant difference in ELL students' writing proficiency before and after implementation of a hybrid model.

H3. There is a statistically significant difference in ELL students' listening proficiency before and after implementation of a hybrid model.

H4. There is a statistically significant difference in ELL students' speaking proficiency before and after implementation of a hybrid model**.**

Four independent-samples *t*-tests were conducted to address the four hypotheses in RQ2. The mean of the scores on the KELPA tests in reading, writing, listening, and speaking before the intervention were compared to the mean of the scores on the tests after the intervention. An independent-samples samples *t*-test was chosen for the hypothesis testing since it examines the mean difference between two mutually exclusive independent groups, and both means of two groups are continuous variables. The level of significance was set at .05.

RQ3. To what extent is there a difference in ELL students' grit score before and after implementation of a hybrid model?

H1. There is a statistically significant difference in ELL students' grit scores before and after implementation of a hybrid model.

An independent-samples *t*-test was conducted to address RQ3. The mean of ELL students' grit scores before the intervention was compared to the mean of the grit scores after the intervention. An independent-samples samples *t*-test was chosen for the hypothesis testing since it examines the mean difference between two mutually exclusive independent groups, and both means of two groups are continuous variables. The level of significance was set at .05. When appropriate, an effect size was reported.

Limitations

Lunenburg and Irby (2008) defined limitations as "factors that may have an effect on the interpretation of the findings or on the generalizability of the results" (p. 133). Limitations for this study include:

1. Students may have varying exposure and instruction in English prior to enrolling at School S. This may affect interpretation of results as some students might have more prior knowledge and proficiency in English causing them to acquire language faster.
2. Teachers at School S, both ELL and general education, may have had more training or experience in effective ways to instruct ELLs within a general education class. This may affect interpretation of results as students in classes where teachers are highly effective or more experienced might have more academic language acquisition than others.
3. Some ELL students enroll at School S at different times throughout the school year giving them more or less time in the country and/or hybrid program than others. This could affect interpretation of results as those who have been in School S longer may have higher achievement or language proficiency than those who enroll after the beginning of the school year.
4. A small portion of ELLs at School S have identified learning disabilities that may affect performance on measures used in the study.
5. The sample of the study was limited to the ELL students enrolled at School S.

6. Outside factors, including student motivation, health, and attitude could have affected student achievement scores as measured by the tools used for the study.

Summary

The purpose of this study was to examine the differences in reading and mathematics growth, English Language proficiency, and student grit by comparing a sample of ELL students before and after the implementation of a hybrid ELL instructional model. Chapter 3 presented the participants' selection procedure, measurements, the data collection procedures, statistical analysis plans, and limitations of the study. Chapter 4 will present the results of the statistical tests conducted for this study.

Chapter 4

Results

This quantitative, quasi-experimental study was designed to examine the potential impact of a hybrid instructional model on academic growth, English language proficiency, and grit scores of middle school ELL students in School S. ELL student scores in the aforementioned areas prior to the implementation of a hybrid instructional model were compared to scores after the implementation of the hybrid instructional model to determine if there was a difference. The results seek to bring insight to the greater body of research of instructional models for ELLs.

Hypothesis Testing

Data from NWEA MAP Mathematics and Reading Growth, KELPA, and Panorama were received by the researcher in an excel file format from the district assessment office and imported into IBM® SPSS® Statistics Faculty Pack 28 for Windows. The analysis of the data focused on three research questions. Each research question is delineated below with its corresponding hypotheses and results of the statistical analysis procedures conducted.

RQ1. To what extent is there a difference in ELL students' academic growth before and after implementation of a hybrid model?

***H1*.** There is a statistically significant difference in ELL students' reading growth before and after implementation of a hybrid model.

Table 9 shows the descriptive analysis results for students included in the NWEA MAP Reading growth sample. The results of the independent samples *t*-test did not indicate a statistically significant difference between the two means, $t(776) = 1.74$, $p =$

.083. The mean for NWEA MAP Reading growth for the pre-implementation group (*M* = 5.16, *SD* = 9.47, *n* = 412) was not different from the mean for NWEA MAP Reading growth post-implementation group (*M* = 4.04, *SD* = 8.30, *n* = 366). The research hypothesis H1 was not supported. The results indicate that implementation of a hybrid instructional model for ELLs may not have had an impact on NWEA MAP Reading growth.

Table 9

Descriptive Analysis for NWEA MAP Reading Growth Sample

	N	Percent
Native Language		
Spanish	668	75.1
Other	221	24.9
Ethnicity		
Hispanic	729	82.0
Non-Hispanic	160	18.0
Gender		
Male	475	53.4
Female	414	46.6
Implementation Status		
Pre-	442	49.7
Post-	447	50.3

Note. Total number of participants is 889. *N* = number of participants.

***H2*.** There is a statistically significant difference in ELL students' math growth before and after implementation of a hybrid model.

The descriptive analysis results for students included in the NWEA Mathematics growth sample are shown in Table 10. The results of the independent samples *t*-test did

not indicate a statistically significant difference between the two means, $t(805) = 0.83$, $p = .410$. The mean for NWEA MAP Mathematics growth for the pre-implementation group ($M = 6.08$, $SD = 7.75$, $n = 413$) was not different from the mean for NWEA MAP Mathematics growth post-implementation group ($M = 5.64$, $SD = 7.12$, $n = 394$). The research hypothesis H2 was not supported. The results indicate that implementation of a hybrid instructional model for ELLs may not have had an impact on NWEA MAP Mathematics growth.

Table 10

Descriptive Analysis for NWEA MAP Mathematics Growth Sample

	N	Percent
Native Language		
Spanish	673	75.2
Other	222	24.8
Ethnicity		
Hispanic	733	81.9
Non-Hispanic	162	18.1
Gender		
Male	477	53.3
Female	418	46.7
Implementation Status		
Pre-	441	49.3
Post-	454	50.7

Note. The total number of participants is 895. *N* = number of participants.

RQ2. To what extent is there a difference in ELL students' English language proficiency before and after implementation of a hybrid model?

H1. There is a statistically significant difference in ELL students' reading proficiency before and after implementation of a hybrid model.

Table 11 shows the descriptive analysis results for students included in the KELPA sample. Native language data for the students included in the sample were not available. The results of the independent samples *t*-test for RQ2 H1 indicated a statistically significant difference between the two means of KELPA Reading Proficiency, $t(403.10) = 6.72$, $p < .001$, $d=0.63$. The mean for KELPA Reading Proficiency for the pre-implementation group ($M = 577.53$, $SD = 78.95$, $n = 280$) was statistically significantly higher than the mean for KELPA Reading Proficiency post-implementation group ($M = 523.08$, $SD = 95.82$, $n = 212$). The research hypothesis H1 for RQ2 was supported. The result indicates that ELL students scored higher in reading proficiency in the English language prior to the implementation than after the implementation of the hybrid instructional model with a medium effect size.

Table 11

Descriptive Analysis for KELPA (Reading, Writing, Listening, Speaking) Sample

	N	Percent
Ethnicity		
Hispanic	409	83.1
Non-Hispanic	83	16.9
Gender		
Male	269	54.7
Female	223	45.3
Implementation Status		
Pre-	280	56.9
Post-	212	43.1

Note. The total number of participants is 492. *N* = number of participants.

***H2*.** There is a statistically significant difference in ELL students' writing proficiency before and after implementation of a hybrid model.

The results of the independent samples *t*-test for RQ2 H2 indicated a statistically significant difference between the two means of KELPA Writing Proficiency, $t(302.40) = 4.85$, $p < .001$, $d=.48$. The mean for KELPA Writing Proficiency for the pre-implementation group ($M = 599.09$, $SD = 74.35$, $n = 280$) was statistically significantly higher than the mean for KELPA Writing Proficiency post-implementation group ($M = 548.17$, $SD = 138.37$, $n = 212$). The research hypothesis H2 for RQ2 was supported. In other words, the result indicates that ELL students scored higher in writing proficiency in the English language prior to the implementation than after the implementation of the hybrid instructional model with a medium effect size.

H3. There is a statistically significant difference in ELL students' listening proficiency before and after implementation of a hybrid model.

The results of the independent samples *t*-test for RQ2 H3 indicated a statistically significant difference between the two means of KELPA Listening Proficiency, $t(362.88) = 5.81$, $p < .001$, $d=.55$. The mean for KELPA Listening Proficiency for the pre-implementation group ($M = 565.09$, $SD = 72.88$, $n = 280$) was statistically significantly higher than the mean for KELPA Listening Proficiency post-implementation group ($M = 516.92$, $SD = 102.63$, $n = 212$). The research hypothesis H3 for RQ2 was supported. In other words, the result indicates that ELL students scored higher in listening proficiency in the English language prior to the implementation than after the implementation of the hybrid instructional model with a medium effect size.

H4. There is a statistically significant difference in ELL students' speaking proficiency before and after implementation of a hybrid model.

The results of the independent samples *t*-test for RQ2 H4 did not indicate a statistically significant difference between the two means of KELPA Speaking Proficiency, $t(251.04) = -0.95$, $p = .342$. The mean for KELPA Speaking Proficiency for the pre-implementation group ($M = 601.86$, $SD = 71.43$, $n = 280$) was not different from the mean for KELPA Speaking Proficiency post-implementation group ($M = 615.70$, $SD = 202.27$, $n = 212$). The research hypothesis H4 for RQ2 was not supported. The results indicate that implementation of a hybrid instructional model for ELLs may not have had an impact on students' speaking proficiency in English as measured by KELPA.

RQ3. To what extent is there a difference in ELL students' grit score before and after implementation of a hybrid model?

H1. There is a statistically significant difference in ELL students' grit scores before and after implementation of a hybrid model.

The descriptive analysis results for students included in the Panorama Grit sample are shown in Table 12. The results of the independent samples *t*-test for RQ3 H1 did not indicate a difference between the two means of Panorama Grit scores, $t(284) = -0.02$, $p = .984$. The mean for Panorama Grit scores for the pre-implementation group ($M = 3.47$, $SD = 0.76$, $n = 147$) was not different from the mean for Panorama Grit Scores post-implementation group ($M = 3.47$, $SD = 0.78$, $n = 139$). The research hypothesis H1 for RQ3 was not supported. The results indicate that implementation of a hybrid instructional model for ELLs may not have had an impact on students' self-perception of grit as measured by Panorama.

Table 12

Descriptive Analysis for Panorama Grit Sample

	N	Percent
Native Language		
Spanish	311	85.2
Other	54	14.8
Ethnicity		
Hispanic	303	83.0
Non-Hispanic	62	17.0
Gender		
Male	217	59.5
Female	148	40.5
Implementation Status		
Pre-	188	51.5
Post-	177	48.5

Note. The total number of participants is 365. *N* = number of participants.

Summary

The results of statistical analysis of each of the three research questions and their related hypotheses were presented in chapter 4. The mean ELL student growth scores in reading and mathematics after the implementation of the hybrid instructional model were not different than mean ELL student growth scores prior to the implementation of the hybrid model. The same results were found for grit scores. In conclusion, the hybrid instructional model may not have had an impact of student reading growth, mathematics growth, or grit scores. Consistent with the hypotheses, prior to the implementation of the hybrid instructional model, ELL students mean scores in reading proficiency, writing proficiency, and listening proficiency were significantly higher than post-implementation,

however, there was no difference in ELL students mean scores in speaking proficiency. Chapter 5 contains a summary of the research study, including interpretation of the results and major findings, connections to the relevant literature, implications of those findings, and recommendations for further research.

Chapter 5

Interpretation and Recommendations

Study Summary

The findings of this quantitative, quasi-experimental study showed to what extent is there a difference in ELL reading growth, mathematical growth, language proficiency, and grit before and after the implementation of a hybrid instructional model. Presented in chapter 5 is a summary of the study, which includes an overview of the problem, purpose statement and research questions, a review of the methodology, and major findings. Additionally, this chapter contains findings related to the literature and conclusions.

Overview of the problem. School districts across the United States use different instructional models and types of program organization to meet the needs of ELLs (National Clearinghouse for English Language Acquisition, 2019) which could potentially have an impact on student achievement. ESL pullout, for example, is an instructional model for ELLs where students are taught in a self-contained classroom with other ELLs and by one ELL teacher who has limited access to the general curriculum and resources. These teachers report problems with lack of planning time with content teachers, lack of access to adequate space for teaching, and having to travel to multiple sites in a day or week. Researchers argue that this is the most expensive of all program models, is the least effective, and comes with a stigma that a student's native language is a problem to be remedied (Ovando & Collier, 1998; Ovando & Combs, 2012). ESL content, more commonly knowns as sheltered instruction, is another example of an ESL program model. ELLs learning in this type of instructional model have a similar experience with the pullout model, but the ELL teachers have access to

general curriculum and resources. Students are expected to gain language proficiency and master content standards through content instruction only, with little focus on English grammar, vocabulary, or language context (Young & Hadaway, 2006). Newcomer programs serve ELL students, especially secondary students, in school districts having little cultural or linguistical diversity (Herrera & Murry, 2011) and have student populations of ELLs with varying levels of literacy proficiency in their native language. For the purpose of this study, School S used a pull-out instructional model prior to the 2019-2020 school year. In the fall of 2019, School S implemented a hybrid instructional model building-wide where ELLs were enrolled with native English-speaking peers in Mathematics, English Language Arts, and Social Studies. ELL teachers co-taught alongside general education teachers in these classes.

Purpose statement and research questions. This study was designed to examine the potential impact of a hybrid ELL instructional model on academic growth, English language proficiency, and grit scores of middle school ELL students. Specifically, the current study investigated to what extent is there a difference in ELL students' academic growth, English language proficiency, and grit scores before and after implementation of a hybrid model. The students in this study were enrolled in Grades 6, 7, and 8 and received ELL services in School S.

Review of the methodology. A quantitative study, using a quasi-experimental design comprised of archival data, was utilized for this study. Using purposive sampling over the course of five years, sixth-, seventh-, and eighth-grade ELL students enrolled at School S with fall and spring NWEA MAP Mathematics and Reading assessment scores, KELPA scores, and Panorama data were included in the study. The archival data from

NWEA MAP for Reading and Mathematics, KELPA, and Panorama were received by the researcher from the Assessment Office of District A in July of 2022 after IRB approval. The researcher compared the data pre-and post-implementation of a hybrid ELL instructional model to examine the impact of the model. The means of reading and mathematics growth pre- and post-implementation were compared using independent samples *t*-tests. Additionally, the means of reading, writing, listening, and speaking proficiencies in the English language pre-and post-implementation were compared using independent samples *t*-tests. Last, the means of student grit scores pre- and post-implementation were compared using independent samples *t*-tests. These results were presented in the previous chapter.

Major findings. The mean ELL student growth scores in reading and mathematics after the implementation of the hybrid instructional model were not different from mean ELL student growth scores prior to the implementation of the hybrid model. The same results were found for grit scores; the mean of student grit scores prior to the implementation of the hybrid model was not different than the mean of student grit scores post-implementation. Consistent with the hypotheses, prior to the implementation of the hybrid instructional model, ELL students' mean scores in reading proficiency, writing proficiency, and listening proficiency were statistically significantly higher than post-implementation, however, there was no difference in ELL students' mean scores in speaking proficiency.

Findings Related to the Literature

Results of this study showed no change in mean growth in reading and mathematics when comparing means from pre- and post-implementation of a hybrid

instructional model. There is not currently existing research in literature about academic growth related to specific instructional models for which to compare these results. Much of the current research regarding ELL academic achievement and growth compare ELLs to their non-ELL peers and show overall lower performance by ELLs when compared to non-ELL peers. According to the literature, ELLs continue to have lower achievement in all subjects, particularly STEM subjects, than their non-ELL peers (Maarouf, 2019). Polat et al. (2016) found in their research that reading achievement varied over time, both positively and negatively, for ELLs where their non-ELL peers had an increase in reading achievement. Literature showed that achievement in mathematics was always lower for ELLs than non-ELL peers (Polat et al., 2016). Research from Polat et al. (2016) found that over the course of four years, non-ELLs showed two-times higher growth in mathematics than ELL peers by fourth grade. By eighth grade, the gap between groups was even larger; non-ELLs had growth trajectories that were four-times higher in mathematics than ELL peers (Polat et al., 2016). While this study did not compare ELLs to non-ELL peers, the study results are consistent with literature in that ELL growth, specifically in reading and mathematics, did not increase over time.

This study yielded results showing higher mean scores in English language proficiency for ELLs prior to the implementation of the hybrid model in the areas of reading, writing, and listening and no change in mean scores in the area of speaking. According to the literature, success [in any area] depended on the level of literacy in a student's native language (Cook, Boals, & Lundberg, 2011; Gándara & Orfield, 2010; Lindholm-Leary, 2012, 2017; Soland & Sandilos, 2021). Further, the literature showed that language proficiency can be influenced by many factors, such as student age,

proficiency level in the native language, and the type of instructional model used (Artigliere, 2019; Gándara & Orfield, 2010; Lindholm-Leary, 2012, 2017). This study aimed to look at only one of those factors. Additionally, the literature suggested it takes ELLs three to five years to develop oral proficiency and four to seven years to develop academic English proficiency (Cummins, 1981; Hakuta, Butler, & Witt, 2000). This study was limited to only two years of data prior the model implementation and two years of data post-implementation.

Results from this study showed no difference in the mean of student grit scores pre-implementation of the hybrid instruction model when ELLs were segregated from native English-speakers, compared to the mean student grit scores post-implementation of the hybrid model when ELLs were integrated in classes with native English-speakers. The literature suggested that it is essential to the ELL's identity to be educated along non-ELL peers rather than pulled out for segregated instruction (Dabach, 2014). Researchers showed that being pulled out for instruction gave ELLs a lower self-esteem and self-efficacy/grit (Dabach, 2014; Soland & Sandilos, 2021) which affected achievement. Additionally, Capara et al. (2008) shared that grit was directly related to reading and mathematics growth in ELLs; higher levels of grit yielded higher growth in reading and mathematics. The literature also found that grit is impacted by a high care environment where ELLs feel that teachers have high levels of care and belief in the students' abilities (Banse & Palacios, 2018). Higher grit led to higher achievement and could be leveraged by teachers to aid in performance of their students.

Conclusions

In 2019, a novel coronavirus, known as severe acute respiratory coronavirus 2 (SARS-CoV-2), caused a disease outbreak in China called coronavirus 19, or COVID-19 (Mayo Clinic, 2019). The virus spread quickly across continents, and in March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic (Cucinotta & Vanelli, 2021). Shortly after this announcement, school districts throughout the United States began closing (Decker, Kim, Harris, Peele, & Riser-Kositsky, 2020) and students were sent home without formally completing the academic school year. District A offered optional, at-home learning for the remainder of the 2019-2020 school year which could be accessed through the summer months as well. The 2020-2021 school year began later than in years past due to the pandemic, and students in District A experienced changes to its students' access to formal, in-person school. Based on COVID-19 infection levels in the community, students shifted between remote learning, where they were required to access their classes online and through hybrid learning, where small groups of students would alternate between going to school in-person or learning remotely every other day. Students in District A did not return to full time, in-person learning until March of 2021. Some students chose to learn remotely for the entire 2020-2021 school year. Approximately 30% of the student population at School S chose to learn remotely for the entirety of the 2020-2021 school year with 11% of those receiving active ELL services (K. Ulmer, personal communication, August 15, 2020).

The disruption to learning caused by the pandemic may have had an impact on student learning. Kwayke and Kibort-Crocker (2021) found that results from national diagnostic assessments in reading and mathematics showed a greater proportion of

students began the 2020-2021 school year with below grade-level placement scores than in previous years. Additionally, data suggests that students of color, ELLs, and low-income students may have experienced a greater disruption to learning during the pandemic than that of their peers due to lack of access to internet and technology, responsibility to take care of younger family members, lack of academic support at home, and/or loss of parental income because of lost job opportunities (Kwayke & Kibort-Croker, 2021).

Implications for action. In looking at data from this study, ELL students' language proficiency in reading, writing, and listening was higher before the implementation of the hybrid instructional model. Because the hybrid instructional model was implemented in the school year abruptly shortened due to COVID-19 and continued in 2020-2021 where students experienced major disruptions to learning, one may need to consider the impact of the pandemic on student regression in language proficiency more than the impact of the implementation of the hybrid instructional model. Schools should take action in providing targeted intervention in these areas, regardless of instructional model, to allow for increased student proficiency in English language. Schools should also consider researched best practices for teaching ELLs as schools return to normalcy in a post-pandemic education setting.

As ELL populations continue to increase in schools across the United States, school districts should plan initiatives to target improvement in academic achievement and growth, language proficiency, and grit in these students. School districts should invest in high-quality professional development for both ELL teachers and general education teachers to teach best practices for instructing ELLs, different forms of co-

teaching, and how to leverage grit to increase student achievement and growth. As the literature suggests, higher grit in ELL students leads to higher achievement (Capara et al., 2008). Additionally, school districts should develop a shared vision for high academic achievement for all by incorporating the process of professional learning communities (PLCs). A PLC is defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour, DuFour, Eaker, Many, & Mattos, 2016, p. 10).

Building administrators, regardless of grade level of students in which they serve, should take time to develop a master schedule that aligns ELL teachers with core-content teachers during a common plan time in order to allow for collaboration. A core-content teacher is considered the expert in the content standards, while the ELL teacher is the expert in helping ELLs have appropriate and targeted access to the content in meaningful ways. Additionally, ELL teachers and core-content teachers can collaboratively analyze student data to make decisions about instruction that are more effective. "Schools that are serious about fostering collaboration and transforming…must begin to designate and protect time during the regular school day for teacher teams to meet" (Many, Maffoni, Sparks, & Thomas, 2018). Together, and in conjunction with high quality professional development provided by district leaders, core-content teachers and ELL teachers can become a high functioning team that has a positive impact on student achievement.

Teacher education programs and colleges and universities should take action in ensuring that students in their programs are prepared for working with ELLs in their future careers. These programs should create courses with specific objectives of effective

teaching in special and diverse populations which would include best practices for teaching ELL students. Coursework should also include guiding future teachers in how to create a highly caring and structured environment as well as how to leverage student grit and self-efficacy to increase achievement and growth trajectories.

Recommendations for future research. The implementation of the hybrid instructional model occurred in a school year cut short by the COVID-19 pandemic and continued in non-traditional learning settings like remote/virtual learning and hybrid learning. More research could be conducted outside of the stressors and disruption to learning as schools have returned to formal, in-person learning post-pandemic. Analyzing student data from post-pandemic years where students are in a formal, in-person learning setting might provide further insight on the impact of a specific type of instructional model for ELLs academic growth and language proficiency.

This was a quantitative study of ELL students' academic growth, grit score, and language proficiency before and after the implementation of a hybrid instructional model. Further insight might be gained from qualitative research on ELL student perception and preference on different types of instructional models. If a student feels more comfortable in one setting versus another, it could have a potential impact on academic growth, grit, and/or language proficiency.

This study was limited to middle school students. Additional insights could be gained by replicating this study with participants from different age groups. Doing so might provide information about the impact of an ELL student's age in academic growth, grit, and language proficiency.

The majority of the students included in the sample for this study had a native language of Spanish. Replicating this study in a population of students with other native languages might provide additional information about hybrid instruction models. Research focused on students who speak native languages other than Spanish and participate in learning through a hybrid instructional model might show different results in academic growth, grit, and/or language proficiency.

Concluding remarks. The data presented in this study provides evidence that student language proficiency was different in the academic areas of reading, writing, and listening after the implementation of the hybrid instructional model but there was no change in student academic growth or grit scores. It is acknowledged that the global pandemic may have played a part in the potential for impact of the hybrid instructional model. Because the hybrid instructional model was not able to be implemented for a full instructional year prior to disrupted learning due to the pandemic, the data may be different had the pandemic not occurred.

Additional data about School S provided by District A was received by the researcher after the completion of data analysis for this study that provided additional insights on the effects of the hybrid instructional model on summative reading and math assessment scores (J.Veatch, personal communication, August 29, 2022). In the 2021-2022 school year, students returned to full time, in-person learning in District A. Scores show that in the 2021-2022 school year there was a higher percentage of ELLs at School S scoring in Level 2, 3, or 4 on the Kansas State Assessment in both reading and mathematics than ELLs in other middle schools in District A and in the state of Kansas. Prior to the 2021-2022 school year, the percentage of ELLs scoring in Level 2, 3, or 4 at

School S was lower in both reading and math than those in other middle schools in District A and the state of Kansas (with the exception of reading in 2017). While student achievement data was not used for the purpose of this study, a conjecture can be made that the hybrid instructional model is the reason for the positive change in student achievement data on the Kansas Assessment and that use of the hybrid instructional model should continue in School S and be considered for implementation in other schools. With future research, should a hybrid model be proven to show significant growth in student academic, language proficiency, and grit scores, school district personnel should be obligated to implement this model for greatest student impact.

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Appendices

Appendix A: Revised Grit Scale used in Panorama Survey

Revised Grit Scale

1. If you have a problem while working towards an important goal, how well can you keep working?
2. How often do you stay focused on the same goal for several months at a time?
3. Some people pursue some of their goals for a long time, and others change their goals frequently. Over the next several years, how likely are you to continue to pursue one of your current goals?
4. When you are working on a project that matters a lot to you, how focused can you stay when there are lots of distractions?
5. If you fail to reach an important goal, how likely are you to try again?
6. How likely is it that you can motivate yourself to do unpleasant tasks if they will help you accomplish your goals?

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Appendix B: Request to Conduct Research in District A

External

Application to Request Data (External)

1. **Applicant(s) Name: Erin Richerson**
2. **Applicant's Position Title: Assistant Principal, Chisholm Trail Middle School; Doctoral Candidate, Baker University**
3. **Applicant's Telephone Number: 913-488-0031**
4. **Applicant's Email Address: eericherson@olatheschools.org**
5. **Organization Name and Address:**

   Organization: Baker University School or Professional and Graduate Studies

   Street Address: 7301 College Blvd

   City, State and Zip Code: Overland Park, KS. 66210

   Phone Number: 913-491-4432

   Organization Website: bakeru.edu/spgs

6. **Purpose of Request (How will the data be used?) Please be specific.**

The purpose of this research was to determine to what extent is there a difference in ELL students' academic growth, English language proficiency, and grit score before and after implementation of a hybrid model for English language learner (ELL) instruction. Prior to the 2018-2019 school year, the school studied utilized a pull-out instructional model for ELLs. Beginning in the 2018-2019 school year, ELLs at the school studied were taught using a combination of a few different types of instructional models, referred to in this study as a hybrid model.

7. **Specific Data Request/Description (What type of data; For which group(s); Years; Disaggregation) Please be specific.**

I am requesting KELPA (overall proficiency and all subcategories), MAP Growth Fall to Spring (Reading and Math; not conditional growth, just overall growth regardless of Conditional YES/NO status), and Panorama (Grit subscore only if possible) for all ELL students at XXXXXXXXXXXX School from SY 2016-2017 through 2020-2021. I would need their ELL status included for each year.

8. **In what way does this data request benefit the XXXXXX Schools and its students and/or staff?**

This research could benefit XXXXXX and its students by determining to what extend is the impact of a hybrid instructional model for ELL students on student academic growth, language proficiency, and grit score. The potential for change in instructional model used in the district could be evident should there be a significant impact in the aforementioned measures.

9. **As the representative of requesting agency, I acknowledge I have read and understand the XXXXXX Schools' IDAE Policy and will abide by said policy.**

Signature of Applicant — Date: 6/22/2022

10. **As the representative of requesting agency, I acknowledge our organization will be good stewards of the data means to benefit the XXXXXX Schools students and/or staff.**

Signature of Applicant — Date: 6/22/2022

Appendix C: IRB Request

BAKER UNIVERSITY

IRB Request

Date 06.14.2022

IRB Protocol Number _____
(IRB use only)

I. Research Investigator(s) (students must list faculty sponsor)

Department(s) School of Education

	Name	Signature	
1.	Erin Richerson	Erin Richerson Digitally signed by Erin Richerson Date: 2022.06.22 09:12:41 -05'00'	Principal Investigator
2.	Dr. Lanie Fasulo	Lanie Bertels Fasulo Digitally signed by Lanie Bertels Fasulo Date: 2022.06.20 16:04:53 -05'00'	☑ Check if faculty sponsor
3.	Dr. Li Chen-Bouck	Li Chen-Bouck Li Chen-Bouck 2022.06.20 09:56:15 -05'00'	☐ Check if faculty sponsor
4.			☐ Check if faculty sponsor

Principal investigator contact information

Phone 913-488-0031

Email erinericherson@students.bakeru.edu

Address 23817 W 124th Court
Olathe, KS 66061

Note: When submitting your finalized, signed form to the IRB, please ensure that you cc all investigators and faculty sponsors using their official Baker University (or respective organization's) email addresses.

Faculty sponsor contact information

Phone 913-706-6257

Email lanie.fasulo@bakeru.edu

Expected Category of Review: ☑ Exempt ☐ Expedited ☐ Full ☐ Renewal

II. Protocol Title

Hybrid Instructional Model for English Language Learners and Impact on Student Achievement

III. Summary:

The following questions must be answered. Be specific about exactly what participants will experience and about the protections that have been included to safeguard participants from harm.

A. In a sentence or two, please describe the background and purpose of the research.

The purpose of this research was to determine to what extent is there a difference in ELL students' academic growth, English language proficiency, and grit score before and after implementation of a hybrid model for English language learner (ELL) instruction. Prior to the 2018-2019 school year, the school studied utilized a pull-out instructional model for ELLs. Beginning in the 2018-2019 school year, ELLs at the school studied were taught using a combination of a few different types of instructional models, referred to in this study as hybrid model.

B. Briefly describe each condition, manipulation, or archival data set to be included within the study.

The researcher will use standardized assessment data from a school district (MAP, KAP, Panorama) from pre- and post-implementation of the hybrid model. Dates would range from 2017 to 2021.

IV. Protocol Details

A. What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

The data used are all archived data. Student Growth on the NWEA MAP assessment will be used, summative assessment data from Kansas Assessment Programs will be used, and summative data from the Panorama Survey in the subcategory of grit will be used for ELL students.

B. Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

The subjects will not encounter psychological, social, physical, or legal risk.

C. Will any stress to subjects be involved? If so, please describe.

There will be no stress to the subject involved.

D. Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

Subjects will not be deceived or misled in any way.

E. Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

No personal or sensitive information will be used.

F. Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

No.

G. Approximately how much time will be demanded of each subject?

No additional time is needed of each subject.

H. Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

Subjects are not contacted or notified because the data used are all archived data.

I. What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

Not applicable; archived data from required assessments are being used.

J. How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

Students already consent to the required annual assessments in the district and state of Kansas.

K. Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No.

L. Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher, or employer? If so, explain.

Not applicable.

M. What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with the data after the study is completed?

The data will be stored on a personal computer of the researcher. No student names will be used in the data. The data will be stored for five years after completion of the study. The data will be deleted from the personal computer after five years.

N. If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

No risks of any kind are involved.

O. Will any data from files or archival data be used? If so, please describe.

Archival data will be used from Olathe Public Schools: annual Kansas English Language Proficiency Assessment scores (part of Kansas Assessment Program), NWEA MAP Growth scores, and scores on Panorama survey in the category of Grit.

Appendix D: IRB Approval

Baker University Institutional Review Board

July 1st, 2022

Dear Erin Richerson and Lanie Fasulo,

The Baker University IRB has reviewed your project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee
Sara Crump, PhD
Nick Harris, MS
Susan Rogers, PhD