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UNDERSTANDING THE RELATIONSHIP TO TEACHING MODEL
AND STUDENT DEMOGRAPHICS**

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THE LANGUAGE ACQUISITION OF ELL STUDENTS: UNDERSTANDING THE
RELATIONSHIP TO TEACHING MODEL AND STUDENT DEMOGRAPHICS

A dissertation submitted in partial fulfillment
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by

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ABSTRACT

THE LANGUAGE ACQUISITION OF ELL STUDENTS: UNDERSTANDING THE RELATIONSHIP TO TEACHING MODEL AND STUDENT DEMOGRAPHICS

Suahuil Carolina Valerio

This quantitative study evaluated how teaching models for language acquisition—the Integrated, the Stand-Alone and the Mixed Model—and student characteristics—gender and disability status—relate to growth in language skills among ELL students. In this study, the New York State English as a Second Language Achievement Test scores of the elementary school children in 3rd and 4th grades were analyzed from one school district in New York. During the 4th grade school year, ELL students received instruction via the Integrated Model, the Stand-Alone Model, or the Mixed Model, as such the 3rd grade scores served as a baseline while the 4th grade scores (or growth from 3rd to 4th grade) provided insights into the benefits of each model. The results indicated that there was no statistically significant difference in language growth between the three teaching models; however, students classified as disabled experienced lower language growth than their peers.

DEDICATION

This dissertation is dedicated to my family members for their love and support throughout this journey. My family has been a cornerstone in making this journey possible. To my mother and my husband who have continuously supported me in my educational endeavors, I want to say, “Thank You!” You have taken it upon yourselves to carry some of the responsibilities in order to allow me time to conduct my research. You have also served in my place as “MOM” when I needed to take time to complete tasks that had deadlines.

I want to also dedicate this dissertation to my son Sebastian and my daughter Stephanie for being the inspiration and the motivation behind the completion of this research. As young children, you have been patient and understanding. This dissertation was completed for you! Life might be difficult at times and situations might change the course of your life, but always believe in yourself and never give up on your dreams.

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TABLE OF CONTENTS

DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
CHAPTER 1.....	1
Introduction.....	1
Purpose of the Study.....	4
Theoretical Framework.....	5
Conceptual Framework.....	8
Significance of Study.....	9
Connection with Social Justice and the Vincentian Mission.....	10
Research Questions.....	11
Definition of Terms.....	11
CHAPTER 2.....	14
Theoretical Framework.....	14
Krashen’s Second Language Acquisition Theory.....	14
Implications for Teaching Models.....	17
Cummins.....	18
Implications for Teaching Models.....	19
Conceptual Framework.....	20
The Historical Background of the United States School System for ELL.....	24
The Need to Understand the Various Teaching Models.....	27
Review of Related Research on the Advantages and Disadvantages of Language Teaching Models.....	27
Stand Alone Model.....	27
Integrated Model.....	29
Conclusion.....	32
CHAPTER 3.....	33
Research Questions and Hypotheses.....	33
Research Design.....	36

Procedure for Collecting Data	36
Sample and Population	36
Instruments.....	39
Research Ethics	39
Data Analysis.....	39
Research Question 1	39
Research Question 2	40
Research Question 3	40
Research Question 4	40
Conclusion	41
CHAPTER 4	42
Descriptive Statistics.....	42
Research Question 1	44
Research Question 2	46
Research Question 3	46
Research Question 4	48
Conclusion	50
CHAPTER 5	51
Summary and Implications of Findings.....	51
Relationship to Prior Research	52
Limitations of the Study	53
Recommendations for Future Practice.....	55
Recommendations for Future Research.....	56
Conclusion	58
APPENDIX A.....	60
APPENDIX B.....	61
REFERENCES	63

LIST OF TABLES

Table 1	Description of How Krashen’s and Cummins’ Hypotheses Interact with Different Teaching Models.....	21
Table 2	Description of Participants in the Study.....	38
Table 3	Descriptive Statistics of NYSESLAT Proficiency Levels by Teaching Model.....	42
Table 4	Gender of 4 th Grade Participants in Each Teaching Model.....	43
Table 5	Disability Status of 4 th Grade Participants in Each Teaching Model....	44
Table 6	Games Howell Post-hoc Test Results, Teaching Model Comparison...	45
Table 7	Two-Way ANOVA Results, Teaching Model and Gender.....	48
Table 8	Two-Way ANOVA Results, Teaching Model and Disability Status....	49

LIST OF FIGURES

Figure 1	Teaching Models and Student Characteristics Possibly Affecting English Language Achievement Growth on the NYSESLAT.....	9
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CHAPTER 1

Introduction

In the U.S. today, about 10% of students (approximately 5 million students) in the U.S. are classified as English Language Learners (ELLs) according to the Department of Education (U.S. Department of Education, 2020). The number of ELLs is only expected to grow. In New York State alone, there were over three hundred fifteen thousand ELL students registered in both public and non-public schools (Office of Bilingual Education and Foreign Language Studies, 2012). These students are incredibly diverse, with common native languages including Spanish, Arabic, Chinese, and Vietnamese (U.S. Department of Education, 2015). Regardless of their native language and cultural background, ELL students across the U.S. need to meet the same standards as their native English-speaking counterparts. As a result, these students are faced with the challenge of English language acquisition, as well as learning the traditional grade-level content in English Language Arts, Science, Social Studies and Mathematics.

Importantly, the “[a]cquisition of literacy encompasses more than individual growth; literacy happens in particular contexts, in particular ways and for particular purposes” (Purdy, 2008, p.50). English as a New Language (ENL) professionals have developed theories to explain language acquisition and created various methods of teaching based on those theories, from rote methods to more innovative ones, to enhance and accelerate the process of English acquisition for ELLs. However, with a variety of theories and models available, it is imperative that educators receive guidance on which models are most successful in order to provide students with the best language acquisition education possible.

This study examines three common models for language acquisition: the Stand-Alone Model, the Integrated Model, and the Mixed Model. In a Stand-Alone Model, the ELL and the general education students are taught together by the general education teacher for the majority of the day. For specific periods of the day, the ELL students are removed and taught by an ENL teacher who holds a Teaching English to Speakers of Other Languages (TESOL) Kindergarten through 12th grade certification that teach in the English as a New Language (ENL) classroom setting. The amount of time spent with the ENL teacher is predetermined by New York State in accordance with the proficiency level of the ELL student, ranging from 90 to 360 minutes per week. The Stand-Alone Model is the most common language acquisition teaching model in U.S. elementary schools (Thomas & Collier, 1997). It is intended to provide concentrated language and content instruction according to the needs of each student with a licensed professional, and allow the general education teacher to not focus on providing specialized language instruction (Lacina, et al., 2011). Moreover, students may feel most comfortable working on language with ELL peers who are working through similar challenges. However, there are a few disadvantages. Two potential disadvantages are that the teaching model offers limited time for language instruction with each student and that the "...[s]econd language learners are separated from majority-language peers – reducing language input and interaction" (Lacina et al., 2011, p.108). Another disadvantage is that students miss important content instruction when they leave the classroom in order to receive their English as a New Language (ENL) services (Bell & Baecher, 2012; Murphy et al., 2019). As such, ELL students may feel stigmatized because they must be separated from their monolingual peers (Bell & Baecher, 2012). Finally, this program is expensive as the

schools must have two certified professionals teaching the same population (Lacina et al., 2011).

In the Integrated Model, the ELL and general education students stay in the same classroom all day with either a dually certified teacher in TESOL and Common Branch Kindergarten through 6th or with two certified teachers (one certified in TESOL and another certified in Common Branch K-6th grades). There are many potential advantages of an Integrated Teaching Model that mirror the disadvantages of the Stand-Alone Model. According to Lacina et al. (2011), content and language learning occur within the same self-contained classroom and are age appropriate and cognitively challenging at the same time. “Students are free from the stigma of remedial instruction” (Lacina et al., 2011, p. 112). Monolingual and ELL students are treated equally in this model and may seek the assistance of the ENL or general education teacher (Whiting, 2017). This teaching model can also be more cost effective than the Stand-Alone Model in cases where a dually certified instructor is employed in place of two instructors. However, there are new disadvantages. This model requires teachers be trained to be effective in co-teaching situations (Lacina et al., 2011). If the lessons are not carefully planned, the language specialist can feel underutilized in the classroom, but finding common planning time for the language specialist and the general education teacher can be a challenge (Lacina et al., 2011; Whiting, 2017). Moreover, within this model, ELLs might not feel comfortable and secure to practice and develop their language skills since they are with their monolingual counterparts and might feel constricted and inhibited since they do not have dominance over the target language.

The Mixed Model combines the Stand-Alone and Integrated Models: ELL students receive Stand-Alone instruction from an TESOL certified teacher for a set time period each day and, otherwise, receive Integrated instruction. Therefore, ELL students would spend 90 minutes to 180 minutes receiving instruction only with their ELL peers while the other 90 minutes to 180 minutes would be spent learning in a classroom that encompassed both a general education teacher as well as a language specialist. In New York State, the specific duration of instructional time in either model (Stand-Alone or Integrated) would be predetermined by the level of English proficiency according to the NYSESLAT or NYSITELL. This model would hopefully provide the benefits of both models while limiting their consequences; however, it is the costliest to implement as more qualified instructors are needed.

Purpose of the Study

To inform the best practices of ENL teachers, this dissertation compares the effectiveness of the three common language-acquisition teaching models in New York State (the Stand-Alone, Integrated, and Mixed models), as well as understand how student characteristics, particularly gender and disability status, relate to student language growth among 4th grade ELL students in New York under each model. In New York State, approximately 9.2% of students are identified as ELLs (U.S. Department of Education, 2020). While, in New York, these students typically have a choice of learning English through an ENL program or Bilingual program if there are at least 20 students that speak the same native language (Office of Bilingual Education and Foreign Language Studies, 2014), this study focused only on students in ENL programs since Bilingual programs are not an option in many districts across the United States. Notably,

in a typical ENL program, students do not need to speak the same native language; they are grouped together for the purpose of learning English regardless of their native language. This is the case for this study and the specific home language of each student is not known.

Language growth in this study is measured using standardized tests. In New York, all students participating in an ENL program must take the New York State English as a Second Language Achievement Test (NYSESLAT). The NYSESLAT measures the language proficiency of a student at the end of each school year. For the purpose of this study, the NYSESLAT proficiency levels of the elementary school children in grades 3 and 4 were analyzed from one school district in New York in order to determine which teaching model yielded the highest English language proficiency growth, as well as to understand how gender and disability status related to growth in English language proficiency.

Theoretical Framework

ENL professionals have long studied how a new language is acquired and have debated the best methods to enhance and accelerate the process of acquiring a target language. In the past century, Stephen Krashen's (1985) Second Language Acquisition Theory and Jim Cummins' Hypotheses of Common Underlying Proficiency (CUP) and Interdependence (Cummins, 1984, 1991) have guided the field.

Krashen's Second Language Acquisition Theory explains several hypotheses about second language acquisition which have been used to guide ENL teaching models including the Input Hypothesis, Affective Filter Hypothesis and the Monitor Hypothesis. The Input Hypothesis states that gaining language competence should be thought of as

acquiring a language, and new information of the target language is acquired by inductively working at one level above the current level of competence in scaffolded lessons (Krashen, 1982; Krashen & Terrell, 1983). The Affective Filter hypothesis suggests that language is acquired when the “affective filter” (a construct symbolizing feelings relating to oneself) of a person is relatively low, therefore the learner is not anxious or nervous about their ability to learn a new language (Krashen, 1982, 1985; Krashen & Terrell, 1983). Finally, the Monitor Hypotheses suggests that second language learners (SLL) ability to monitor and correct their language use will contribute to their spoken fluency in the target language. All three hypotheses, when taken into consideration are thought to promote optimal levels of language acquisition (Krashen, 1982; Krashen & Terrell, 1983).

Cummins Interdependence and Common Underlying Proficiency (CUP) hypotheses state that prior knowledge in a student’s native language greatly influences the proficiency growth in a target language since both languages inhabit the same part of the brain (Cummins, 1986). In other words, students can apply their current language knowledge to their acquisition of a new language; the skill does not need to be relearned but merely transferred to the target language. Therefore, students benefit from lessons that incorporate their native language through the teaching of cognates or connections made through previously learned skills in their native language. Classrooms which allow these types of connections to be experienced by the students, allow the ELL students to acquire the target language more easily since certain skills, depending on the students’ academic proficiency level in the native language, has already been acquired.

Cummins is also credited with coining the two types of proficiency in second language learners. The first or initial level of proficiency was coined as basic interpersonal communication skills (BICS) which is typically developed between the first six months to two years of acquiring a language (Collier, 1987; Cummins, 1984). This level of proficiency is the social language which students typically use to communicate their wants and needs. BICS requires being exposed to the language, and general education students provide a great resource for ELLs to learn to communicate in the target language. The second proficiency level is known as cognitive-academic language proficiency (CALP) which takes between five and seven years to develop (Crawford, 1999; Cummins, 1979). CALP is achieved when a student can use the language in an efficient manner in order to participate in school academics. Both BICS and CALP must be mastered in order for a student to achieve proficiency in the targeted language. In the context of this study, it would consist in achieving “Commanding” level on the NYSESLAT.

In light of these theories, the question of teaching model efficacy then becomes a question of how well these models: (1) provided a scaffolded, inductive learning approach; (2) make students comfortable in the learning environment; (3) provide them with opportunities to use language with native speakers and correct themselves during those interactions; (4) provide them with opportunities to learn the grammar and structure of the language; and (5) enable them to draw connections between their native language and target language. A broader discussion of the strengths and weaknesses of the models in these areas is provided in Chapter 2.

Conceptual Framework

For this study, teaching models as well as student gender and disability status were hypothesized to affect English language achievement growth. As described above, the teaching models have different potential benefits based in the theories of Krashen and Cummins. As such, which model is used, is theorized to affect growth.

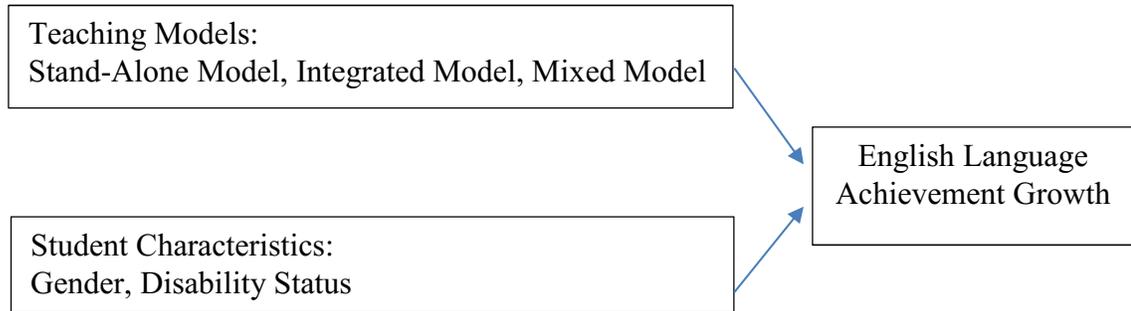
In addition, both gender and disability status have been linked to language learning in prior research, as such they may also influence second language acquisition or interact with the methods used for teaching. As it relates to gender, girls tend to outperform boys in subjects that relate to languages since they seem to be viewed as feminine subjects (Achtziger & Bayer, 2018; Hofer & Stern 2016; Kessels et al., 2006). Since language is viewed as a feminine subject, females outperform males while males tend to outperform females in subjects such as the sciences since they are viewed as masculine in nature. Studies have also demonstrated that gender play a role in language development, and females perform better in English Language Arts (ELA) and language proficiency of a second or target language (Barrat et al., 2020; Haas et al., 2016).

Disability status has also been studied. According to several studies, it also plays an important role in ELA and language proficiency of a second or target language (Barrat et al., 2020; Haas et al., 2016). Non-disabled students have outperformed disabled students in state assessments in various states.

An overview of my conceptual model is shown in Figure 1.

Figure 1

Teaching Models and Student Characteristics Possibly Affecting English Language Achievement Growth on the NYSESLAT



Significance of Study

On January 2018, the U.S. Department of Education approved New York’s Every Student Succeeds Act (ESSA) plan (New York State Education Department, 2020). This plan “...emphasized fostering equality in education for all students and expand[ed] measures for school accountability and student success” (New York State Education Department, 2020). One of the indicators by which schools are deemed as performing well is by measuring the progress of ELL students (who form part of the student subgroup). Therefore, the progress of this subgroup is important to the overall score that districts in New York State earn.

In 2019, a report published by the Digest of Educational Statistics stated that in the fall more than 10% of the student population in the public elementary and secondary schools in the United States were ELLs. Since schools must now demonstrate adequate yearly progress as it relates to this subgroup, it is imperative to uncover which instructional model benefitted this population the most. Also, the strained funding in

education leads many professionals to seek the most cost-effective models to adequately educate students in a rapidly changing world.

This quantitative study contributes to our collective knowledge about how different teaching models can help districts meet progress targets on the New York State English as a Second Language Achievement Test (NYSESLAT) as set forth by New York State Department of Education. By determining which teaching model is more efficient, stakeholders can make changes to academic programs in order to promote language acquisition throughout the ELL population. Furthermore, by examining whether or not gender and/or disability plays a significant role, stakeholders can reevaluate programs in order to promote success for all ELL students. Lastly, professional development courses can be devised in order to train teachers on how to formulate lessons that are accessible to all in the ELL population.

Connection with Social Justice and the Vincentian Mission

The ELL community has struggled to gain the same access and quality of education as their monolingual English-speaking counterparts. In 1974, the outcome of *Lau v. Nichols* called for the equalization of educational opportunities for students with limited English proficiency. Since then, many changes have taken place. For example, ELL students now have the option of enrolling in various programs that help facilitate the learning of the target language. Even with these changes, however, more must be done in order to close the academic gap that exists between ELL students and their counterparts. ELL students remain far behind their non-ELL peers, and this gap has been relatively unchanged for the last 20 years (Murphy, 2014). This dissertation can contribute to the conversation on how best to improve the learning experiences of ELL students, with the

end-goal of designing new educational structures to remove barriers to learning. This study can also provide critical knowledge to schools and parents seeking to best serve their ELL students. With knowledge about teaching models, both groups can proactively seek out programs that will work best for their children.

Research Questions

The research questions guiding the study are as follows.

Research Question 1. Is there a statistically significant difference in the average fourth grade language proficiency level between the different teaching models (Integrated Model, Stand-Alone Model or Mixed Model)?

Research Question 2. Is there a statistically significant difference in the language growth from third to fourth grade for students experiencing different teaching models (Integrated Model, Stand-Alone Model or Mixed Model)?

Research Question 3. Are the different teaching models differentially effective by gender for NYSESLAT growth?

Research Question 4. Are the different teaching models differentially effective by disability status (non-disabled vs. disabled) for NYSESLAT growth?

Definition of Terms

New York State English as a Second Language Achievement Test (NYSESLAT). This assessment measures the student's level of proficiency on an annual basis. It also determines if a student continues to receive services and the amount of time the student will receive these services on a weekly basis. Students in grades kindergarten through 12th grade must take this exam every year (Office of Bilingual Education and Foreign Language Studies, 2011).

Entering. A Student at the Entering level has great dependence on supports and structures to advance academic language skills and has not yet met the linguistic demands necessary to demonstrate English language proficiency in a variety of academic contexts (Office of Bilingual Education and Foreign Language Studies, 2015).

Emerging. A student at the Emerging level has some dependence on supports and structures to advance academic language skills and has not yet met the linguistic demands necessary to demonstrate English language proficiency in a variety of academic contexts (Office of Bilingual Education and Foreign Language Studies, 2015).

Transitioning. A student at the Transitioning level shows some independence in advancing academic language skills, but has yet to meet the linguistic demands necessary to demonstrate English language proficiency in a variety of academic contexts (Office of Bilingual Education and Foreign Language Studies, 2015).

Expanding. A student at the Expanding level shows great independence in advancing academic language skills and is approaching the linguistic demands necessary to demonstrate English language proficiency in a variety of academic contexts (Office of Bilingual Education and Foreign Language Studies, 2015).

Stand-Alone Model (formerly known as Pull-Out Model). English language learners are removed from the general education classrooms to learn English language skills and/or academic content covered in the general education classroom by the ENL teacher (Linguanti, 1998).

Integrated (formerly known as Push-In Model). Support for English language learners is provided within the general education classroom by the ENL specialist who teaches in the student's general education classroom (Linguanti, 1998).

Mixed Model. English language learners experience a mix of Integrated and Stand-Alone Model throughout the academic year.

Adequate Yearly Progress (AYP). This measure is the manner in which academic progress is measured by each individual state according to the standards set forth by the United States Department of Education (U.S. Department of Education, 2004).

CHAPTER 2

Educators of ELLs are developing best practices and teaching models that will enhance and accelerate the learning of this student population; however, with many models available more information is needed on how best to serve these diverse learners. The central question I address is: which mode or teaching model fosters the most language acquisition growth among ELL students, overall, by gender, and by disability status? In this chapter, I describe theories about language acquisition and their implications for the effectiveness of different teaching models. I further describe the history behind the educational reforms that have affected the ELL population and the manner in which they have been educated. I then review empirical literature on teaching strategies for use with ELL students that inform this work.

Theoretical Framework

Stephen Krashen's (1985) Second Language Acquisition Theory and Jim Cummins' Linguistic Interdependence Hypothesis (Cummins, 1984, 1991) have shaped the ENL profession and have guided the instruction in this field for decades. Teaching models and programs have been developed with these theories and hypotheses at their core.

Krashen's Second Language Acquisition Theory

Stephen Krashen's Second Language Acquisition Theory, presented in his book, *The Input Hypothesis, Input and Implications* (1985) as well as in *Principles and Practice in Second Language Acquisition* (1987), includes three hypotheses about second language acquisition that can inform the selection of an "optimal" teaching model: the Input Hypothesis, the Affective Filter Hypothesis, and the Monitor Hypothesis.

Krashen's Input Hypothesis explains that students acquiring a second language need scaffolded supports, individualized to their current level of knowledge and focused on the meaning rather than grammar (Krashen, 1982; Krashen & Terrell, 1983). He proposes an "i+1" model where a student's current level of knowledge is represented by "i", and the level of work that is a bit more difficult than what the student knows is represented by "i+1". With appropriate supports, students will acquire the new information "i+1" and move up to the next level or stage of acquisition. Ideal teaching models should have lessons structured in this manner in order to promote language acquisition.

The Affective Filter Hypothesis explains that students' feelings and comfort are a critical part of the process of acquiring a second language (Krashen, 1982, 1985; Krashen & Terrell, 1983). Krashen defined the "affective filter" as one's feelings relating to oneself and proposed that language is acquired when one's affective filter is relatively low, when the learner is not anxious or nervous about their learning. When the affective filter is low, it allows the flow of comprehensible input which in turn leads to acquired competence in the target language. This situation promotes two things. First, it encourages the student to seek more input from native speakers and to be more receptive to the input being given both in the classroom and outside. In contrast, a high affective filter, or significant anxiety about their ability to learn a new language, hinders the acquisition process. In this case, the student will be less likely to engage with peers and seek input. Since the Affective filter plays a vital role in promoting or hindering taking risks when it comes to practicing the target language, certain teaching models may prove to be beneficial for ELLs more so than other teaching models by making students more or less anxious about practicing language.

The final relevant hypothesis is the Monitor Hypothesis, which states that the learning of a language (which is a conscious effort made to learn the language) merely serves the purpose of monitoring the language (Krashen, 1982; Krashen & Terrell, 1983). Additionally, it serves as a function for correcting oneself or, as it is referred by Krashen, *self-repair*. During the process of learning, the ELL can monitor his or her utterances before and after the language is produced textually or verbally. According to Krashen (1982) and Krashen and Terrell (1983), monitor use is very limited in second language learning because three components must be present. The first is time. Sufficient time is needed in order for the SLL to consider the grammatical rules needed to construct sentences in order to convey ideas. The second component that must be present is the focus on form (Krashen, 1982; Krashen & Terrell, 1983). With this component in mind, the SLL must also monitor the form of his or her sentences. The last imperative component that must be present is the knowledge of the grammatical rules of the language (Krashen, 1982; Krashen & Terrell, 1983). This is probably the most difficult of all since a language is composed of many rules of which the SLL might not be aware of because he or she is only exposed to a small fraction of the grammar.

In this hypothesis, Krashen (1982) also identifies three different variants of users of the Monitor; Monitor Over-User in which the SLL consistently monitors every utterance, the Monitor Under-User in which the SLL who either has not learned or would rather not use his or her conscious knowledge of the language, and the Optimal Monitor User which are individuals who use the Monitor when it is appropriate and when it does not hinder communication. The Optimal Monitor Users utilize "...their learned competence as a supplement to their acquired competence" (p. 21). These users use their

Monitor when all three components (time, focus on form, and knowledge of the grammar) are present, and these three components are usually used in their writing. Since ELLs must show growth in their speaking and writing skills on the NYSESLAT in order to advance to the next level and ultimately reach language proficiency, different teaching models have been created in order to provide opportunities for students to acquire and practice these skills with the support of the ENL specialist.

Implications for Teaching Models

Krashen's Input Hypothesis suggests that in order for language proficiency growth to occur lessons must be presented in such a way in which the material is slightly more difficult than the student's current competency. In a Stand-Alone Model or in a Mixed Model, the teacher has more autonomy in the lesson being presented. In an Integrated Model, collaboration and flexibility between the ENL teacher and the general education teacher becomes vital in order to create a perfect setting for this hypothesis to be present in every lesson.

The Affective Filter Hypothesis suggests that the acquisition of a language occurs when the affective filter is low. Assuming that ELL students' affective filters are more likely to be low when surrounded by peers that are at the same language proficiency level, it would suggest that Stand-Alone or Mixed model classrooms that provide students language lessons with only ELL peers may be most conducive to their language acquisition. In contrast, Integrated classrooms, where all language learning occurs alongside non-ELL peers may lead students to feel less comfortable participating.

Lastly, the Monitor Hypothesis proposes that the Optimal Monitor User is the ELL student that makes the most gains as it relates to the speaking and writing modalities

which are two of the subtests in the NYSESLAT. This student takes moderate risks with language which allow for continuous growth. The teaching models which allow for these moderate risks are the Stand-Alone Model and the Mixed Model since the ELL student is not competing with monolingual learners. In an Integrated Model, an Optimal Monitor User could flourish if both ENL and general education teachers create an ambiance where there is a space and time allotted of ELLs to interact with their peers.

Cummins

Cummins Interdependence Hypothesis states that children who have mastered the basics of reading and thinking in their first language tend to perform very well in a second language environment (Crawford, 1999). This is attributed to the Common Underlying Proficiency (CUP) since it facilitates a transfer of academic skills. In the Common Underlying Proficiency, Cummins states that skills in different languages inhabit the same part of the brain thus reinforcing each other at the base while differing at the surface or in the language being spoken (Cummins, 1986). In other words, commonalities across languages help skills acquired in the first language to be transferred to the target language without having to relearn the skill in the target language. This suggests that language acquisition programs that draw parallels between students' home languages and English, and support students' language growth in both their home languages and English may be particularly effective.

According to Cummins (1984), in order for an individual to master a second language, he or she must have both basic interpersonal communication skills (BICS) and cognitive-academic language proficiency (CALP) (Crawford, 1999; Cummins, 1979). BICS develop from the first six months to two years of acquiring a language (Collier,

1987; Cummins, 1984). Language during this period is primarily social, e.g., “playground English” (Crawford, 1999, p.130). As Crawford states, it “...is heavily dependent on clues – visual gestures, conversational responses, and physical interactions - that are largely absent in the classroom” (p. 130). CALP is attained mostly through formal schooling not solely social interaction. This level of proficiency normally takes five to seven years to develop (Collier, 1987; Cummins, 1984). At this level, the student needs to be able to succeed in a “context-reduced, cognitively demanding activity such as reading, writing, mathematics and science and other subject areas” (Crawford, 1999, p.130). The development of both BICS and CALP require time to use the new language to communicate with peers and formal teaching of grammar and structure.

Implications for Teaching Models

Cummins Interdependence Hypothesis suggests that models that provide opportunities for students to draw on their native language understanding will help students succeed in learning the target language. The Stand-Alone Model and the Mixed Model offer ample opportunities for the ELL and the teacher to draw parallels between the home language and the target language. Since there is a separate allocated time in the school day for language intense lessons, the ENL specialist is able to devise lessons where parallels can be made between the home language and target language. These lessons can take part in an Integrated Model, but may cause disruptions in the classroom flow and would need a substantial amount of planning between the general education teacher and the ENL specialist.

The acquisition of BICS and CALP requires significant time and practice, such that the Mixed Model offers the best circumstances. It provides the space where ELLs

can interact with their monolingual peers while still maintaining the support from and ENL specialist in the classroom. It also offers ELLs the opportunity to spend time only with the ENL specialist in order to partake in content-reduced but cognitively demanding environment where the pace of the lesson can be adjusted to ensure language growth. In contrast, the Integrated Model offers the opportunity to use the language with monolingual peers, but does not always allow for ample time in order for lessons to be taught adequately. The Stand-Alone Model offers ample time for lessons to be adequately taught, but lack in the ability to provide monolingual peer interaction opportunities.

Conceptual Framework

I posit that teaching models and student characteristics play a role in the language achievement growth of ELLs as it is measured through the NYSESLAT (see Figure 1 in Chapter 1 for an overview of my model). As discussed above, the teaching model (Integrated Model, a Stand-Alone Model or a Mixed Model) has implications for whether activities aligned with these hypotheses are used in a classroom. For example, because the Stand-Alone Model allows for language learning to occur in a separate location with only other ELL students, students' affective filters may be lower, and ELLs may be more open to practicing the new language. Table 1 summarizes the pros/cons of the different models in light of these theories.

Table 1*Description of How Krashen's and Cummins' Hypotheses Interact with Different**Teaching Models*

	Stand Alone	Mixed	Integrated
Input Hypothesis: <i>Scaffolded, Inductive Learning Opportunities</i>	Language-learning is done in a smaller, focused group, so teachers may more easily scaffold student learning.	Language learning is done in small and large groups allowing for scaffolding to occur in the smaller group setting when necessary.	Focused lessons may be challenging in larger groups where the students are heterogenous.
Affective Filter Hypothesis: <i>Reduced Anxiety During Learning</i>	Since language is taught in smaller groups with homogenous peers, ELL may take more risks and feel less vulnerable to ridicule by peers.	The Affective Filter might shift depending on the group size and peers. Students might experience a low Affective Filter with ELLs and a high Affective filter with monolingual peers since they might feel deficient when interacting in the target language.	When learning a language, practicing a language in large groups of monolingual peers may cause a high Affective Filter in ELLs since the disparity may be significant between students.
Monitor Hypothesis: <i>Ability to Practice and Self-Check</i>	This model allows the student to take moderate risks in language in a setting in which peers are at the same language level.	Since ELLs are with monolingual peers for a large portion of the school day, they risk becoming Monitor-Over Users because they may feel the need to continuously compare themselves to their monolingual peers.	ELLs in this model run the same risk as in the Mixed Model.
Interdependence Hypothesis: <i>Ability to Draw on Native</i>	Because ELLs are in smaller groups, it allows the ENL specialist to focus	In this model, students have the opportunity to work in smaller and	Very little flexibility in the lesson is available in order to draw

<i>Language Knowledge</i>	on underlying similarities between the home language and the target language thus avoiding to reteach skills that have already been mastered in the home language.	larger groups. If the lesson is perceived as too difficult in the larger group, students may move to a small group setting which allows for more flexibility within the lesson being taught.	parallels between the home language and target language thus possibly reteaching skills that have been mastered.
Mastery of both BICS and CALPS: <i>Time to Practice both Speaking and Academic Skills</i>	Mastery of BICS can become challenging since monolingual peers are needed in order to practice the language.	The mastery of CALP is the last step in language acquisition. The Mixed Model grants ELLs the opportunity of participating in a content-reduced but cognitively demanding environment when needed.	The mastery of BICS is the first step towards learning a language, and it needs to be practiced. Therefore, monolingual peers play a vital role.

The Mixed Model, in theory, may be the most effective because it allows the ENL teacher to control many factors in the classroom as it relates to the Input Hypothesis as well as the Interdependence Hypothesis, while also allowing for more practice time with monolingual peers. Lessons can be scaffolded and similarities in the target language and home language can be used to build the foundation of new skills being taught. This teaching model allows for sufficient flexibility in the lessons taught so that language proficiency growth can continuously occur.

Beyond the models explored, it is noteworthy to mention that all students have characteristics that can potentially change the ELL experience. These characteristics shape students and the experiences that they may encounter in a classroom setting. Male

students and disabled students are more “at risk” for poor language acquisition according to prior literature. Male students are not prone to make as much progress in subjects that are deemed feminine in nature such as languages (Achtziger & Bayer, 2018; Hofer & Stern 2016; Kessels et al., 2006). Male students have a tendency instead to excel in academic subjects that are considered to have masculine attributes such as science and math. In state studies conducted in Arizona and Utah, researchers found that females outperformed males when taking ELA state exams or proficiency language exams (Barrat et al., 2020; Haas et al., 2016). Both were longitudinal studies which tracked students from the onset of their educational careers beginning in kindergarten.

Another characteristic that has demonstrated to influence the acquisition of language, regardless of whether it is the primary or target language, is disability status. In longitudinal studies conducted at the state level, non-disabled students have outperformed disabled students as it relates to ELA and language proficiency assessments (Barrat et al., 2020; Haas et al., 2016). In the efforts of reducing the achievement gap, the state of Arizona conducted a longitudinal study with students entering kindergarten (Barrat et al., 2020). They tracked their progress through 3rd grade. At the conclusion of the study, researchers found that disabled students were one of the groups that had “lower cumulative passing rates on the statewide ELA assessment over five years” (Barrat et al., 2020). Disability status within the ELL community was significantly associated with ELA proficiency. In a similar study conducted in Utah, researchers also considered disability to be an important factor that affected ELA and language proficiency levels (Haas et al., 2016). In this six-year longitudinal study, disability was also found to be significantly associated with poor performance in the ELA statewide exam. According to

the literature, disability status is a predictor for how well a student might perform in ELA or language proficiency assessments.

The Historical Background of the United States School System for ELL

For the last fifty years, many policies have been crafted in order to make the educational experience of ELLs more productive while closing the educational gap between ELLs and their counterparts. Undoubtedly, these policies have been driven by the 1968 Bilingual Education Act, which is also known as Title VII of the Elementary and Secondary Education Act, and later the 1974 Amendments. Title VII gave language minority students the right to quality education in a public school setting. It provided supplemental funding for schools to provide programs that met the needs of English language learners in the United States. Title II of the 1974 Amendments Act, also called the Equal Educational Opportunity Act (EEOA), served to provide definitions of what constituted a denial of equal educational opportunity in the school system. The EEOA declared that educational institutions must “take appropriate action to overcome language barriers that impede equal participation by their students” (EEOA, 1974). An educational agency could no longer simply provide English content classes with no additional language support because it was deemed educational inequality.

Court cases have led to additional legislation. *Lau v. Nichols*, 1974, was a landmark court case that brought to the forefront issues regarding education for the English language learner population in the United States. In the *Lau* case, immigrant parents of 1,800 Chinese students sued the San Francisco School District because they were denied access and participation to educational programs due to their inability to effectively communicate in English. The majority decision stated, “There is no equality

of treatment merely by providing students with the same facilities, textbooks, teachers and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education” (Lau v. Nichols, 1974). Therefore, the district by only giving access to an education was denying them educational equality. This decision provided ELL students with an equal opportunity as their English-speaking counterparts (Samway & McKeon, 2007).

The Office of Civil Rights (OCR) was subsequently tasked to oversee compliance with the legislation and set national policy for language education while refraining from mandating specific programs for the instruction of ELL students. It left the states and the local school districts to decide and develop appropriate programming that:

[was] deemed sound by experts in the field or considered a legitimate experimental strategy; use[d] practices that [were] reasonably calculated to effectively implement the educational theory adopted by the school; and succeed[ed] after a legitimate trial, in producing results indicating that students’ language barriers [were] actually being overcome. (OCR, 1991, p.1)

In response to these federal directives, transitional bilingual programs as well as English as a Second Language (ESL) accommodations became widespread in ELL education in the United States (Ruiz-de-Velasco et al., 2000). These approaches were grounded in the fact that instructional goals and needs of ELL students differed from those of mainstream students. Students required different teaching approaches and specialized curricula in order to have them achieve language and academic proficiency since the goal was for ELL students to reach the same academic and language proficiency as their mainstream counterparts. “It marked the beginning of a national interest in

educational equality for language minority students and provoked policymakers throughout the country to respond to the special needs of this growing student population” (Lucas et al., 1990).

Today, New York State has the Next Generation Learning Standards which was adopted in September 2017 and is to be fully implemented into the curriculum by September 2022 (New York State Education Department, 2019). They were developed between the State Education Department of New York and several partners which included the New York State United Teachers, the Big 5 School Districts in New York State, BOCES superintendents as well as representatives from school districts from around the state. These standards laid the road map of what students are expected to know and what their academic performance should be in a classroom setting as it relates to English Language Arts (ELA) and Mathematics. The standards are also used to help New York State students achieve the goals set forth by Every Student Succeeds Act (ESSA) which is the latest reauthorization of the federal Elementary and Secondary Education Act (ESEA). This Act was passed on December 2015, and it has components that are specific to ELLs. Timelines are set by which ELLs are expected to reach proficiency level in English. In New York state, ELLs are expected to achieve proficiency by their 5th year in any given teaching model. The English language proficiency progress is also factored into the state’s accountability calculations, thus making it important for states to show academic growth within the ELL subgroup of the student population. Furthermore, ESSA holds states accountable for the progress made in English language proficiency for ELL.

The Need to Understand the Various Teaching Models

As stated previously, the historical background and the theories previously mentioned laid the foundation for the development of various teaching models. Furthermore, the influx of ELL students coming into the U.S. educational institutions in recent years has made understanding these models timely and critical. In New York State alone, there were over three hundred fifteen thousand ELL students registered in both public and non- public schools (Office of Bilingual Education and Foreign Language Studies, 2012). With these growing numbers, school districts must implement the best programs available in order for students to successfully acquire English.

Review of Related Research on the Advantages and Disadvantages of Language Teaching Models

Empirical literature on the Stand-Alone and Integrated models is reviewed below. The Mixed Model is not included as a separate section, as it is hybrid of those two models.

Stand Alone Model

Empirical literature confirms the posited benefits of the Stand-Alone Model. Whiting (2017) surveyed 71 teachers to understand their perceptions of the Stand-Alone and Integrated models. Overall, teachers viewed the Stand-Alone Model as more favorable than the Integrated Model. Whiting (2017) found that these Stand-Alone classrooms were free from mainstream classroom interruptions. Teachers also had more control over the curriculum which could be guided by the needs of the ELLs in the classroom (Whiting, 2017). Therefore, lessons could be tailored with ease. Teachers felt empowered and autonomous when they had their own classroom. This, in turn, allowed

the teachers to create a safe zone for the ELLs “where a community and relationships could develop” (Whiting, 2017). This sense of community led ELLs to take more linguistic and academic risks without the fear of having their monolingual counterparts in the same classroom.

In a study conducted by Bell and Baecher (2012), 72 participants answered a questionnaire. The data collected was both qualitative and quantitative in nature. The participants had worked in both an Integrated and Stand-Alone models. The study sought to uncover the ENL teachers’ beliefs about teaching models. It also sought to uncover the challenges and benefits that were perceived within each teaching model. The findings of the study clearly stated that 64% of the participants preferred the Stand-Alone Model since the school community was not supportive of collaboration within ENL and general education teachers. In this study, it was noted that even though 98% of the teachers wanted to collaborate almost half felt that the culture of collaboration did not exist in their school thus making a successful Integrated Teaching Model very difficult.

In an ethnographic study conducted by Harklau (1994), the researcher found many advantages that directly benefitted the ELL population. Four Chinese students in California participated in this study for three and a half years in which 315 hours of observation was conducted in various settings. The researcher found clear differences that benefitted the ELLs population experience in a Stand-Alone classroom. In these classrooms, there was superior input by the teacher and more frequent opportunities for interaction between the teacher and students as well as between peers. The spoken and written language could be targeted in order for comprehensible input to occur. This study also demonstrated that the Stand-Alone Model fostered peer networks which helped ELL

students navigate the school community. Finally, it showed that, in the Stand-Alone Model, the language instruction received was always at the students' English level (Harklau, 1999). Thus, the instruction was comprehensible to the ELL student.

Last but not least, ELL students were found to acclimate to the U.S. while still being able to preserve features of their native culture and language (Gibson, 1988). In this two-year study of Sikh children being raised in rural California, Gibson (1988) detailed their adjustments to American life and explored the factors that affected their education in the U.S. In this research, it was explained as to why this group was successful in the educational realm and why they outperformed other minority groups that were going through the same transition in a new country. ELL students felt free to draw on previous knowledge in their native language in order to gain understanding of what was being taught in the classroom without the fear of being stigmatized by their monolingual peers.

These studies, however, also highlighted some drawbacks to the Stand-Alone Model. First example, students miss classroom work when they are being pulled out (Bell & Baecher, 2012; Whiting, 2017). This situation is further compounded because the ENL teacher lacks the expertise of the content being taught in the mainstream classroom and therefore, is unable to teach the subject matter that is being missed (Bell & Baecher, 2012). This causes ELL students to fall behind academically.

Integrated Model

The Bell and Baecher (2012) and Whiting (2017) studies also highlighted some benefits of the Integrated Model, although the Stand-Alone was preferred in both studies. For example, in the Integrated Model, ELL students were seen as a member of the classroom which helped boost their self-esteem (Whiting, 2017). This setting was also

conducive to the development of BICS (the social language) since they had more opportunities to interact in the classroom (Whiting, 2017). ELL students were provided with language models throughout the course of the entire day through their monolingual peer interactions (Bell & Baecher, 2012). They also gained content information by remaining in the classroom (Bell & Baecher, 2012, Whiting, 2017). Furthermore, the ENL teacher also benefitted since he or she developed more of an in-depth knowledge of the curriculum in the general education classroom (Whiting, 2017).

In a three-year case study conducted by York-Barr et al. (2007) in an urban school in Minnesota, researchers found that providing instruction in an Integrated Model setting produced positive academic gains in both reading and math. The population in this study consisted of approximately 150 to 160 first and second grade students for each of the three years. The ELL population made up between 50% and 55% of the total population, and 5% were classified as Special Education students. The standardized assessments conducted in reading and math showed substantial gains for both ELLs and the general education students. All students involved benefitted from an Integrated Model.

Pardini (2006) examined the ELA assessment scores of three consecutive years of the St. Paul Public Schools. They had an Integrated Model where 45% of its kindergarten students were classified as ELL students. During the course of three years, this school system closed the reading gap between ELLs and non-ELLs from 13 to 6 percentage points as measured on the Minnesota Comprehensive Exam. Also, math experienced the same gap closure. The percentage points in this exam fell from 6.7 to 2.7 percentage points between ELL students and non-ELL students. This study demonstrated

that the Integrated Model could be successful both in ELA and math since the gap between ELLs and non-ELLs was reduced.

The Integrated Model also has its flaws. In a longitudinal study conducted in an Integrated Model carried out between 2003 and 2009, McClure and Cahnmann-Taylor (2010) stated that their results indicated that ENL teachers felt inhibited from doing their best work because they felt restricted by the perception of their co-teachers. During the course of six years, the researchers conducted 19 classroom observations that focused on the co-teaching time in the classroom as well as the transition time before and after. Planning sessions were also observed as well as interviews conducted with both ENL teachers and the general education teachers. This research yielded unfavorable results as it pertained to the Integrated Model. The ENL teacher felt restricted and powerless because she was unable to focus on the complexities of teaching language and content. Content was at the center of the lesson, and it was difficult to scaffold the lesson. Little to no administrative support was also a major problem. Last but not least, the ENL teacher was made to feel like a teacher's assistant and not as a collaborative peer who had the potential to enrich the classroom experience for all students. As noted by the researchers, "coteaching [in an Integrated Model] is a complicated, multidimensional endeavor" (McClure & Cahnmann-Taylor, 2010).

Therefore, there are many challenges to the Integrated Model as noted by many researchers. Common planning time for the language specialist and the general education teacher can be a challenge (Friend, 2008). Within this model, ELLs might not feel a safe environment to practice and develop their language skills. Anxiety and embarrassment can adversely affect an ELLs learning (Baker, 2007; Strong, 1983; Whiting, 2017). Last

but not least, ELLs might not receive individualized instruction in the target language since the focus might be on the content being taught rather than the language being learned (Whiting, 2017).

Conclusion

As the theory evidence shows, the Stand-Alone, Integrated, and Mixed teaching models have advantages and disadvantages—suggested both by theory and empirical literature. Also, the models have the same goal. They aim to have students "learn English and eliminate the need for ENL services" (Murphy et al., 2019). What is still unclear is whether one model, in practice, yields higher benefits or show the most significant growth with the ELL student population as it pertains to the NYSESLAT.

CHAPTER 3

This quantitative study evaluated whether teaching models (Integrated, Stand-Alone, or Mixed Model) and student characteristics (gender and disability status) are related to differences in student growth on the New York State English as a Second Language Achievement Test (NYSESLAT) among the ELL student population. In this study, the NYSESLAT scores of the elementary school children in 3rd and 4th grades were analyzed from one school district in New York. The same NYSESLAT Exam was administered in 3rd and in 4th grade, so there were no differences in test scale that needed to be accounted for. The 3rd grade scores were used as the starting point to examine student growth since the exam was taken at the end of the school year. This was followed by the 4th grade exams which were taken the following year. Therefore, this study examined the effect of one full year of instruction using one of the models analyzed in this study (during 4th grade) on their performance growth from 3rd to 4th grade.

Research Questions and Hypotheses

Research Question 1. Is there a statistically significant difference in the average fourth grade language proficiency level between the different teaching models (Integrated Model, Stand-Alone Model or Mixed Model)?

H₀: There will be no variation in the average NYSESLAT proficiency level of students among the Integrated Model, Stand-Alone Model or Mixed Model programs.

H₁: There will be statistically significant variation in the average NYSESLAT proficiency level of students in the Integrated Model, Stand-Alone Model or Mixed Model programs.

Research Question 2. Is there a statistically significant difference in the language growth from third to fourth grade for students experiencing different teaching models (Integrated Model, Stand-Alone Model or Mixed Model)?

H₀: There will be no variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs.

H₁: There will be statistically significant variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs.

Research Question 3. Are the different teaching models differentially effective by gender for NYSESLAT growth?

Factor 1: Program Type

H₀: There will be no variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs

H₁: There will be statistically significant variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs

Factor 2: Gender

H₀: There will be no statistically significant difference between average growth of male and of female students.

H₁: There will be a statistically significant difference between average growth of male and of female students.

Interaction

H₀: There will be no statistically significant interaction between program type and gender.

H₁: There will be a statistically significant difference between program type and gender.

Research Question 4. Are the different teaching models differentially effective by disability status (non-disabled vs. disabled) for NYSESLAT growth?

Factor 1: Program Type

H₀: There will be no variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs

H₁: There will be statistically significant variation in the average NYSESLAT growth of students in the Integrated Model, Stand-Alone Model or Mixed Model programs

Factor 2: Disability Status

H₀: There will be no statistically significant difference between average growth of disabled and of non-disabled students.

H₁: There will be a statistically significant difference between average growth of disabled and of non-disabled students.

Interaction

H₀: There will be no statistically significant interaction between program type and disability status.

H₁: There will be a statistically significant difference between program type and disability status.

Research Design

The study is a secondary analysis of data from a single school district in New York State. This district is one of the largest in the state of New York. It is situated in an urban area which includes a wealth of different cultures and languages spoken among the families registered. The data analyzed includes student proficiency levels on the NYSESLAT, student demographics and school ELL program model (e.g., whether the program was Integrated, Stand-Alone, or Mixed). To analyze the data, this study used a series of one-way and two-way ANOVAs. Details are provided below on the procedures for collecting and analyzing the data.

Procedure for Collecting Data

Secondary data was requested from an urban school district in New York State. The student data requested included the NYSESLAT proficiency levels for students in 3rd and 4th grade in 2015-2016 academic year, as well as student gender, race/ethnicity, disability status, and free and reduced-price lunch status. In addition, all of the elementary schools were asked to report which ELL teaching model they used. This data was collected via survey that could be completed by the principal or ENL teachers in a school. The survey was distributed via email. In total, data was collected for 4th grade students in 29 schools in the district.

Sample and Population

The target population for this study was 4th grade ELL students in New York. ELL students constitute approximately 13% of the overall student population. Most ELL students in New York State, almost 79%, come from a Spanish speaking background. Many of the other languages spoken by the ELL community are Arabic, Albanian, Urdu,

Malayalam, Twi, Creole, Ukrainian and Chinese as indicated by the Home Language Questionnaire which is filled out when a student first registers in their perspective district.

The final sample for this study included 292 4th grade students in a single school district in New York State from which the researcher had 3rd and 4th grade NYSESLAT proficiency levels and complete demographic information. All of the students are ELLs and approximately 89.3% of the students are categorized as Title I who qualify to receive free or reduced lunch. Their ages are between eight and ten. The ELL population is ethnically classified as being 90.1% Hispanic or Latino, 5.5% White (not Hispanic), 2.1% Asian or Pacific Islander and 2.4% Black or African American (not Hispanic). From this population, 38.4% are female students and 61.6% are male students classified as second language learners. From the ELL population being studied, 24.7% are classified as disabled while 75.3% do not have a disability. In the 4th grade, 32.2% received instruction in the form of Integrated Model, 36.3% received instruction in the form of a Mixed Model and 31.5% received instruction in the form of the Stand-Alone Model.

Table 2*Description of Participants in the Study*

	Number of Students	Percentage of Students
Teaching Model		
Integrated Model	94	32.2
Stand-Alone Model	92	31.5
Mixed Model	106	36.3
English Level Proficiency in the Beginning of the Study		
Entering	33	11.3
Emerging	81	27.7
Transitioning	162	55.5
Expanding	16	5.5
Commanding	-	-
English Level Proficiency at the End of the Study		
Entering	19	6.5
Emerging	72	24.7
Transitioning	122	41.8
Expanding	9	3.1
Commanding	70	24.0
Gender		
Males	180	61.6
Females	112	38.4
Disability Status		
Non-Disabled	72	75.3
Disabled	220	24.7
Ethnicity		
Hispanic or Latino	263	90.1
White (not Hispanic)	16	5.5
Black or African American (not Hispanic)	7	2.4
Asian / Pacific Islander	6	2.1
Free or Reduced Lunch		
Free Lunch	241	82.5
No Free or Reduced Lunch	31	10.6
Reduced Lunch	20	6.8

Instruments

The NYSESLAT Exam is used to measure the English proficiency level of the ELL population in grades kindergarten through twelfth grade. It is a test given by New York State Department of Education. This exam is given every spring during the months of April and May. The NYSESLAT is divided into four basic domains which consist of speaking, listening, reading and writing. The exam consists of multiple choice, constructed responses, short responses and extended response items. For the 3rd and 4th grade assessment, the NYSESLAT Exam has a reported reliability score of .93 for Listening and Speaking, and a reliability score of .92 in Reading and Writing (Pearson, 2009).

Research Ethics

The St. John's University's Institutional Review Board reviewed the planned research study and found it to be exempt (IRB #06-30-14-0614-011, see Appendix A). The district and schools provided data for the study on a voluntary basis and their data was kept confidential to the greatest extent possible. All data was kept in password protected files in a secure location. Moreover, the student identification numbers were replaced with randomized serial numbers to ensure anonymity of the students in the data and no schools are identified by name in this dissertation.

Data Analysis

Research Question 1

A one-way between-subjects ANOVA was used to determine whether students' average 4th grade NYSESLAT proficiency level varies among the three program models.

The independent variable was program type (Integrated, Stand-Alone, and Mixed) and the dependent variable was 4th grade NYSESLAT proficiency level.

Research Question 2

A one-way between-subjects ANOVA was used to determine whether students' average 4th grade NYSESLAT proficiency growth varies among the three program models. The independent variable was program type (Integrated, Stand-Alone, and Mixed) and the dependent variable was 4th grade NYSESLAT proficiency growth. Proficiency growth is defined as the fourth-grade proficiency level minus the third-grade proficiency level.

Research Question 3

A two-way between-subjects ANOVA was used to determine whether students' average 4th grade NYSESLAT proficiency growth varies by program type or gender, as well as whether there is an interaction between program type and gender. The independent variables were program type (Integrated, Stand-Alone, and Mixed) and gender (male and female). The dependent variable was 4th grade NYSESLAT proficiency growth, as defined above.

Research Question 4

A two-way between-subjects ANOVA was used to determine whether students' average 4th grade NYSESLAT proficiency growth varies by program type or disability status, as well as whether there is an interaction between program type and disability status. The independent variables were program type (Integrated, Stand-Alone, and Mixed) and disability status (disabled and not-disabled). The dependent variable was 4th grade NYSESLAT proficiency growth.

Conclusion

The results of these analyses are described in Chapter 4 and the limitations of these analyses in Chapter 5.

CHAPTER 4

Descriptive Statistics

Secondary data from 292 4th grade students from a single New York State school district was analyzed in this study. All students were designated as ELLs, with NYSESLAT scores from the previous year (3rd grade). They ranged in level of NYSESLAT proficiency; there were students in the Entering, Emerging, Transitioning and Expanding levels at the beginning of the study. Those that had scored Commanding were excluded since they would not take the NYSESLAT Exam in the spring of their 4th grade year. Most students were in the Emerging level according to their 3rd grade NYSESLAT scores. The distributions of scores by teaching model are shown in Table 3.

Table 3

Descriptive Statistics of NYSESLAT Proficiency Levels by Teaching Model

Teaching Models	N	M	SD	Minimum	Maximum
Integrated Model	94	22.44	.824	21	24
Mixed Model	106	22.54	.679	21	24
Stand-Alone Model	92	22.68	.783	21	24

Note. This table demonstrates that all of the students at the beginning of the study had a NYSESLAT proficiency between Entering (21) and Expanding (24). Students that had scored Commanding were excluded at the beginning of study.

The majority of students were male (N=180) and the majority of students were categorized as non-disabled (N=220). Only 72 participants held an Individualized Educational Plan (IEP) at the time this study was conducted. Programs had roughly equal distributions of student by gender (Table 4) and disability status (Table 5).

Table 4

Gender of 4th Grade Participants in Each Teaching Model

Teaching Models	Gender	N
Integrated Model	Male	55
	Female	39
Mixed Model	Male	66
	Female	40
Stand-Alone Model	Male	59
	Female	33
Total	Male	180
	Female	112

Note. The table demonstrates that male students outnumbered female students in all three teaching models.

Table 5*Disability Status of 4th Grade Participants in Each Teaching Model*

Teaching Model	Disability Status	N
Integrated Model	Non-Disabled	70
	Disabled	24
Mixed Model	Non-Disabled	90
	Disabled	16
Stand-Alone Model	Non-Disabled	60
	Disabled	32
Total	Non-Disabled	220
	Disabled	72

Note. Non-disabled students outnumbered disabled students in all three teaching models.

Research Question 1

Research Question 1 examined whether there was a statistically significant difference in the average fourth grade language proficiency level between the different teaching models (Integrated Model, Stand-Alone Model or Mixed Model). A One-Way ANOVA was conducted for this research question. The independent variables were the three teaching models (Integrated Model, Mixed Model, Stand-Alone Model). The dependent variable was the NYSESLAT 4th Grade proficiency levels which were Entering, Emerging, Transitioning, Expanding and Commanding. The assumptions for this research question were as follows. For the homogeneity of variance, the distributions of NYSESLAT proficiency levels by teaching model failed the Levene's Test, $F(2,289) = 6.421, p < .01$. Because of this, the Welch F -Test was used in place of

the ANOVA with the Games-Howell post-hoc comparisons. When it came to normality, the three distributions all failed the Shapiro Wilk tests; however, evaluation of the histograms shows near-normal distributions of NYSESLAT scores for all groups. Welch’s adjusted F -Test is robust to violations of normality, so therefore this was not overly concerning. The results were the following. The Welch adjusted F -test was significant, $F(2,187.4) = 3.911, p < .05$.

Because the Welch’s adjusted F -test was significant, Games-Howell post-hoc comparisons were explored. These show that there was a significant difference between the average 4th grade NYSESLAT scores of students in the Integrated Model classrooms and those in the Stand-Alone Model classrooms, $MD = -.509, p < .05$. This suggested that students in the Stand-Alone Model achieved higher growth scores in 4th grade than those in the Integrated Model by about one-half a NYSESLAT level. However, it is important to note that this does not control for students’ prior scores, which is a segue to Research Question 2.

Table 6

Games Howell Post-hoc Test Results, Teaching Model Comparison

Teaching Model (I)	Teaching Model (J)	Mean Difference between Teaching Models (I-J)	Std. Error	p
Integrated Model	Mixed Model	-.161	.166	.597
Integrated Model	Stand-Alone Model	-.509	.185	.018
Mixed Model	Stand-Alone Model	-.348	.172	.108

Research Question 2

Research question 2 focused on growth between 3rd and 4th grade in order to control for differences in the levels at which students started, which may have varied by program type. It focused on whether or not there was a statistically significant difference in the language growth from third to fourth grade for students experiencing different teaching models (Integrated Model, Stand-Alone Model or Mixed Model).

For this research question, a One-Way ANOVA was conducted where the independent variables were the teaching models (Integrated Model, Mixed Model, Stand-Alone Model). The dependent variable was the change in the NYSESLAT proficiency grade level or “growth score” (4th grade level minus 3rd grade level). The assumptions were as follows. For homogeneity of variance, the distributions of NYSESLAT proficiency levels by teaching model passed the Levene’s Test, $F(2,289) = 2.055, p > .05$. When it came to normality, the distributions all failed the Shapiro Wilk tests; however, evaluation of the histograms shows near-normal distributions of NYSESLAT scores for all groups. The ANOVA is robust to violations of normality, so this was deemed acceptable.

The results of the ANOVA were as follows. The ANOVA was non-significant, $F(2,289) = 2.173, p = .116$, which suggests that there were no differences in the average growth scores of students among the three teaching models.

Research Question 3

Research question 3 focused on how the different teaching models and how gender affected the NYSESLAT growth. A Two-Way Between-Subjects ANOVA was conducted for this research question. The independent variables were the teaching

models (Integrated Model, Stand-Alone Model and Mixed Model) and Gender (Male and Female). The dependent variables were the NYSESLAT growth scores (4th grade level – 3rd grade level). The assumptions were as follows. For homogeneity of variance, the distributions of NYSESLAT proficiency levels by teaching model and gender passed the Levene's Test, $F(5,286) = 1.499, p > .05$. For normality, all distributions failed the Shapiro-Wilk test of normality; however, visual inspection showed them to be sufficiently normal. Because the ANOVA is robust to violations of normality, I proceeded with the analysis.

The results of this analysis were as follows. There was no significant interaction effect of instructional model and gender on NYSESLAT growth, $F(2, 286) = .285, p > .05$. There was no significant effect of instructional model on NYSESLAT growth, $F(2, 286) = 2.441, p > .05$. Furthermore, there was no significant interaction effect of gender on NYSESLAT growth, $F(1, 286) = .255, p > .05$. This suggests that neither gender nor teaching models significantly affected the NYSESLAT scores of the students.

Table 7*Two-Way ANOVA Results, Teaching Model and Gender*

Type III Sum of					
Source	Squares	Df	Mean Square	F	<i>p</i>
Corrected Model	4.112 ^a	5	.822	1.019	.407
Intercept	96.405	1	96.405	119.403	.000
Teaching Model	3.942	2	1.971	2.441	.089
Gender	.206	1	.206	.255	.614
Teaching Model *	.460	2	.230	.285	.752
Gender					
Error	230.915	286	.807		
Total	334.000	292			
Corrected Total	235.027	291			

Research Question 4

Research question 4 examined whether the different teaching models (Integrated Model, Stand-Alone Model or Mixed Model) and disability status (non-disabled vs. disabled) affected the NYSESLAT growth. A Two-Way Between-Subjects ANOVA was conducted where the independent variables were the teaching models (Integrated Model, Mixed Model, Stand-Alone Model) and the Disability Status (Non-Disabled or Disabled). The assumptions were as follows. For homogeneity of variance, the distributions of NYSESLAT proficiency levels by teaching model and gender passed Levene's Test, $F(5,286) = 2.010, p > .05$. All distributions failed the Shapiro-Wilk test of normality;

however, visual inspection showed them to be sufficiently normal. Because the ANOVA is robust to violations of normality, I proceeded with the analysis.

The results were as follows. There was no significant interaction effect of instructional model and disability status on NYSESLAT growth, $F(2, 286) = .294, p > .05$. Also, there was no significant effect of instructional model on NYSESLAT growth, $F(2, 286) = 2.953, p > .05$. However, there was a significant effect of disability status on NYSESLAT growth, $F(1, 286) = 4.983, p = .017$. The results suggest that students with disabilities showed less growth on average than their non-disabled peers.

Table 8

Two-Way ANOVA Results, Teaching Model and Disability Status

Source	Type III Sum				
	of Squares	Df	Mean Square	F	<i>p</i>
Corrected Model	7.560	5	1.512	1.901	.094
Intercept	52.312	1	52.312	65.773	.000
Teaching Model	4.697	2	2.349	2.953	.054
Disability Status	3.963	1	3.963	4.983	.026
Teaching Model * Disability Status	.468	2	.234	.294	.745
Error	227.467	286	.795		
Total	334.000	292			
Corrected Total	235.027	291			

Conclusion

The results in this quantitative study indicate that while ELL students had higher average scores in the Stand-Alone Model than their counterparts that were in the Integrated or Mixed models, once prior performance was controlled for (by using a growth score) there were no association between prior performance and growth. Also, there was a statistical difference between non-disabled students and students classified as disabled. The non-disabled students made greater gains in language proficiency as it pertains to the NYSESLAT. In Chapter 5, these findings, their implications, and their connections to prior work will be further discussed.

CHAPTER 5

This chapter presents a summary of the findings as it pertains to the quantitative study that analyzed the NYSESLAT results within three teaching models. Chapter 5 discusses the findings, and concludes with recommendations for further research of the evaluation of instructional models for English Language Learners. In this quantitative study, the effectiveness of three teaching models (the Stand-Alone, Integrated and Mixed models) was evaluated. Students' characteristics of disability status and gender were taken into consideration in the analyses.

Summary and Implications of Findings

The results demonstrated that program type did not appear to be a significant predictor of student learning. This leads one to believe that the different teaching models in this sample seem to function equally as it relates to student language proficiency growth. The only difference that was noted was the fact that non-disabled students performed better on the NYSESLAT than the students classified as disabled.

As noted in Chapter 2, the theories of Krashen (1982; 1985) and Cummins (1984; 1986) guided the evaluation of the teaching models. I hypothesized that the Mixed Model may be the best, as it overcomes the limitations of the Stand-Alone and Integrated models by combining them. However, my results showed that all teaching models fared well, and there was not a significant effect on one teaching model over another. Therefore, it leads one to believe that the components of effective language learning implied by the theories, e.g., scaffolding and inductive lessons, opportunities to transfer skills from native language, etc., are either present equally in all models, or each has relative strengths that lead to equivalent overall student performance. This would suggest that perhaps those

deciding on which model to use should take other factors into consideration, such as teacher and student experiences in classrooms of each type, in order to decide which model is most effective.

Moreover, these results may lead one to believe that the focus should not be on the curricular model, but should shift to teacher training and the ability to teach students regardless of the disability status. Since students with disabilities did not fare as well as the non-disabled group regardless of the teaching model, professional training for teachers should be considered in order to help students with their disability in order to have them perform as well as their non-disable ELL counterparts. Professional training is important since dual certification in Special Education and TESOL is rare. Therefore, professional training for teachers is paramount in order to effectively teach ELL students with disabilities.

Relationship to Prior Research

Because no differences were observed, the present research is somewhat at odds with prior literature. However, it is important to note that only student test scores were explored in this study, and prior literature has taken a more holistic approach to evaluating the models. For example, Whiting's (2017) research favored the Stand-Alone Model because it created a safe zone for students, the classroom was free from mainstream classroom interruptions, and the teacher had more control over the curriculum being taught. Other studies such as Harklau (1994) found that students in the Stand-Alone Model significantly benefitted from receiving superior input by the teacher. In this study, students appeared to all grow similarly in the three models and fared the same. Thus, the Stand-Alone Model was not superior to the others.

Another possible explanation for this research not supporting any of the previous research studies is the selected sample used. Only students in the 4th grade that had previously receive NYSESLAT scores in the 3rd grade participated. Furthermore, only the scores of those students that had their teacher complete the questionnaire of the teaching models utilized during the 4th grade school year became part of the study. This made the pool selection very small because only certain students could participate. Perhaps if a larger sample was used, some differences may have been apparent.

Limitations of the Study

This study had numerous limitations. The sample used was small and limited to one district in New York. Therefore, broad claims cannot be made. Only 292 ELL students participated in this study, and all of the students lived in an urban area in New York State. More specifically, it only encompassed one city in New York State. This research may not be applied to rural or suburban populations. They may only be applied to school districts in urban environments with similar characteristics as the district included in the study therefore leading to poor generalizability.

As it relates to internal validity, since observations were not conducted on the different teaching modals, it cannot be stated that the implementation of the different teaching models were implemented with high fidelity. Only the responses according to the survey stated the teaching model that was implemented in the various schools within the district. In other words, the researcher cannot confirm that the school did implement the model described.

Another limitation is the disproportionate numbers of students that might be taught using one model versus any of the other two models. Many of the students in this

research were taught using the Mixed Model while fewer students were involved in the Integrated or Stand-Alone teaching model. Also, the majority of the students were classified as non-disabled. This, along with the small sample size, may have led to underpowered analyses.

The teacher quality and teacher experience were also factors that could not be controlled. It was not part of the data that was granted by the educational system. Teachers with more experience outperform teachers that are new to the profession. Also, teachers that hold various degrees in several teaching areas are more versatile when teaching heterogenous populations. It is plausible that true real differences might be due to a teacher's individual ability to teach ELLs or the amount of professional development a teacher has had regarding the teaching models. This would warrant further research in which a teacher's qualifications are further examined.

Furthermore, omitted variable bias was present. Since the sample size was small and homogeneous to a certain extent, race and economic status could not be factored into the analysis due to the location of the study. Over 90% of the sample population were considered Hispanic or Latino and qualified for free or reduced lunch. Therefore, one cannot speculate if and how these factors might have played a role on how they might have affected the results presented in this study. Even though these personal characteristics could not be studied, we do know that they are important because they shape educational experiences and therefore might have affected the results.

Another limitation in this study was the calculation of growth as it relates to the NYSESLAT. Unfortunately, only the proficiency levels of the ELL students were available, and the underlying scores were not available. These scores would have granted

further information as to where the student's performance was in relation to the proficiency level. Movement from one level to another may obscure the number of points gained (or the true amount of content learned).

The final limitation to this study is that the NYSESLAT is the only exam being used to measure the English language proficiency in the learning of English. This exam is only administered in the State of New York. Therefore, this research may not be applied to other parts of the United States where other instruments might be used to measure academic growth in the learning of English.

Recommendations for Future Practice

Given the lack of apparent differences in the models in terms of student learning, it is recommended that schools focus more on providing professional development in the field, specifically on how to accommodate the various needs of ELLs. Such professional development should be devised in conjunction with all stakeholder such as administrators, teachers and parents. All stakeholders must understand the particular model students are being required to partake so that they may better support the ELL population. By having an in-depth understanding of the complexities that can exist within language acquisition, the adult stakeholders can foster a supportive environment.

The needs of the Special Education population should also be at the forefront. Teachers should have in-depth access to training and professional development as it pertains to the various disabilities that may exist in one classroom. Having the knowledge of pedagogy as it pertains to students classified as disabled can prove to be beneficial because it can enhance the learning experience of the ELL student with a disability. It can also help close the gap between the non-disabled ELL and the disabled ELL students.

Furthermore, administrators play a vital role in the implementation of the various programs. They should have an in-depth understanding of each model. By having this knowledge, they can then make recommendations on how to improve the teaching techniques within the classroom and ensure that whichever model is used is being employed with high fidelity.

Parents and students also need to be part of the process. Assuming that all models are equally effective, parents and students need to have a full understanding of each model in order to select the model that works best for their learning style. Each student learns differently, and the teaching model selected may have the ability to enhance the school experience. For example, ELL students that are timid might benefit best from the Stand-Alone Model while students that are not may benefit from the Mixed or Integrated Model.

Lastly, students' growth is not the only aspect to consider. If the teaching models discussed are equally effective, teachers should have flexibility to teach in the model that they feel most comfortable. As discussed previously, a teacher's perception of a model is important (Bell & Baecher, 2012; McClure & Cahnmann-Taylor, 2010; Whiting, 2017). A teacher that favors a model may be more accepting of positive critique when being observed from administrators. Also, teachers teaching in a favorable model tend to perform their teaching responsibilities better and with more ease, as well as be more receptive to suggestions for improving their skills.

Recommendations for Future Research

First and foremost, this study should be replicated with modifications in order to be able to study many variables that were not considered. A longitudinal study should be

considered in which districts from diverse socio-economic backgrounds are included. This would give the researcher the advantage of being able to follow the ELL students' progress during the course of several years. It would also give the researcher the advantage of being able to observe if factors such as parent education and socioeconomic status have a significant role in how students perform using the various teaching models. The study should also begin with the score from the NYSITELL. This would inform the research as to the proficiency level of the student in year "0". It would also give the researcher information as to the ENL class being assigned when the student is first being admitted into the program. Having several years of data can help determine whether or not there are proficiency levels (Entering, Emerging, Transitioning and Expanding) that require more time to master. Thus, this would lead to the question of whether additional supports are required in a particular proficiency level. It may also clarify whether students are consistently exposed to a particular teaching model, and if that cumulative exposure is beneficial. The longitudinal study would also grant researchers information as to whether a teaching model is more effective at particular grade levels or whether these teaching models perform equally independent of the grade level. It would also potentially inform on whether there are cumulative differences in the models over time.

In future research, linguistic differences and cultural differences should also be considered. In the case of this study, most students identified as Hispanic, such that teachers may have had somewhat homogeneous students to work with in a given classroom. Having a more heterogeneous sample allows for a closer inspection of how the three models might interact with the targeted population, and how they function in supporting students with different linguistic backgrounds.

Qualitative research should also be considered. Interviews on the comfort levels of teachers using particular teaching models would potentially yield valuable information when comparing to the NYSESLAT scores of students. Also, being able to observe ENL teachers teaching would help solidify the fidelity to which each ENL teacher is implementing the teaching model.

Student perception of the different models would be equally as important to how ENL teachers view the various teaching models. It is important to understand student's perception of the model and whether he or she feels stigmatized when participating in a particular model. This would yield valuable information as to whether a model benefits a particular grade or age group since a student's perception may change with maturity.

Lastly, progress for ELLs along other state exams such as ELA and Mathematics should also be considered since these exams are the state benchmarks which all students must meet. The NYSESLAT measures the growth of those students in the ENL program, and it is the benchmark used to measure the acquisition of language. Mathematics and ELA state exams measure the content of the grade level and whether the content taught has been mastered. The NYSESLAT and the ELA and Mathematics are equally important.

Conclusion

Overall, this study showed that ELL students were learning regardless of teaching model; however, gains were smaller for disabled students. We must continue to build a substantial body of evidence which may yield more information as to how ELL students learn and what supports will be most effective. The results can help shape future teaching

models, and the development of ENL teaching professionals, that can better service the ELL community depending on the needs that exist within each community.

APPENDIX A

IRB Approval MEMO



MEMO

Institutional Review Board
Federal Wide Assurance: FWA00009066

Date: June 30, 2014

To: Suahuil Valerio

CC: Dr. Mary Jane Krebbs
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Protocol # 0614-011
Protocol Title: Language Acquisition Programs for the Culturally and Linguistically Diverse Population: Pull-out vs. Push-in or Mixed Teaching Modes

Please be advised that your human subject protocol has been reviewed by the IRB and is considered approved/exempt. You are free to begin your project.

Since the proposal is exempt, no further follow-up by the IRB is required. Please notify the IRB of any deviation from your proposal since any change may require IRB review and approval.

Best wishes for successful pursuit of this research.

****It is imperative that you keep this on file where it can easily be accessed. You will need to provide copies of this document when involved in further correspondence with the IRB. The IRB will provide you with an additional copy of this document only in the case of an emergency.****

APPENDIX B

Survey

In this Survey, questions about the ENL programs for the school xxxx xxxx-xxxx will be answered. The purpose of this study is to determine which model (Push In, Pull Out or Mixed Model) produces the greatest outcome in regards to the NYSESLAT Exam.

- Push In is defined when the ENL teacher provides services in one of the Core Areas in conjunction with a General Education teacher.
- Pull Out is defined as providing services without the presence of a General Education Teacher in the classroom.
- Mixed Model is defined as providing Push In services for approximately 50% of the school year while providing Pull Out service for approximately the other 50% of the year.

1. Which school do you teach in?
2. For the school, did the Kindergarten ENL or bilingual students mostly participate in a...
 - a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
3. For the school, did the 1st grade ENL or bilingual students mostly participate in a...
 - a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
4. For the school, did the 2nd grade ENL or bilingual students mostly participate in a...
 - a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
5. For the school, did the 3rd grade ENL or bilingual students mostly participate in a...
 - a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
6. For the school, did the 4th grade ENL or bilingual students mostly participate in a...
 - a. Push in model
 - b. Pull out model

- c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
7. For the school, did the 5th grade ENL or bilingual students mostly participate in a...
- a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
8. For the school, did the 6th grade ENL or bilingual students mostly participate in a...
- a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
9. For the school, did the 7th grade ENL or bilingual students mostly participate in a...
- a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A
10. For the school, did the 8th grade ENL or bilingual students mostly participate in a...
- a. Push in model
 - b. Pull out model
 - c. Mixed model where a combination of push in and pull-out models were used
 - d. N/A

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