Preservice Content Area Teacher Sense of Self-Efficacy Toward ELL Student Instruction

By
Christina Carnovale

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Approved as to style and content by:

Eustace C Thompson Ph.D.

Dr. Eustace Thompson, Dissertation Chair

Dissertation Committee
Dr. Eustace Thompson, Chair
Dr. Sage Rose
Dr. Rebecca Natow

Examination Committee
Dr. John Richman
Dr. Timothy Eagen

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The value of a good education is something that has been instilled in me since I was young. My love of learning made it easy to uphold this value. I believe that my decision to pursue a career in education was also a calling; I was meant to take on this role in the world. The experiences that I've had and the impact that I've had on my students over the last nine years are my proof that this is what I am supposed to be doing. After earning my master's degree, I received a card from a friend that read, "Congratulations on becoming 'Ms. Carnovale' (no doubt one day, 'Dr. Carnovale')." I remember thinking at the time that it would really be something to earn that title but was not sure if it was something I would ever do. Three and a half years post-master's, I was feeling unfulfilled. I had not found a probationary teaching position, and I wanted to go back to school. I shopped around looking for programs that were a good fit for what I would like to achieve next, but nothing really spoke to me. I expressed this to my dad, Vincent, and right away he was on the computer searching. He came across Hofstra's Advanced Certificate in Education Leadership program. He said that it looked like a great program, and it could lead to the Doctor of Education program in Educational Leadership and Policy. I applied, was accepted, and six years later, here I am.

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I am extremely grateful for all that I have experienced and accomplished over the years. Hofstra has been my home since 2009. It has been an institution where I have been able to uphold my value of a good education. I am who I am personally and professionally because of my time at Hofstra. I have acquired new skills and unlocked skills within me to utilize in a leadership position. I have completed a research study that I hope will add to a growing body of literature that speaks to a need to be addressed in preservice programs that in turn will give students the best education they can receive. My journey is nowhere near over; I am looking forward to my next chapter.

Abstract

The purpose of this quantitative study was to determine secondary preservice teachers' sense of self-efficacy in ELL student instruction. The researcher administered an adapted version of the Teacher Sense of Self-Efficacy (TSES) survey created by Tschannen-Moran and Woolfolk Hoy in 2001, to a sample population of preservice teachers. The survey consisted of demographic questions, a program evaluation and the TSES which is composed of 12 questions on a 5-point Likert scale where participants indicated the degree to which each question corresponded to their ability to affect a given situation. It was found that perceived preservice program quality and sense of self-efficacy are positively related, participants felt the greatest sense of self-efficacy in student engagement and the least sense of self-efficacy in instructional strategies in terms of ELL student instruction, and that there is no relationship between secondary preservice teacher's current standing and effectiveness in ELL student instruction. Findings from this study speak to the need of higher education leaders to evaluate their preservice programs to ensure that they are structured in such a way that allows their preservice teachers to feel knowledgeable and effective, should they have to teach ELL students in the future.

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Chapter I: Introduction

The United States has been experiencing waves of immigration since the 18th century. Over the last three decades, there has been an increase in the number of individuals who speak a language other than English in their homes (Bohon et al., 2017). "In 2018, a record 67.3 million (one in five people) U.S. residents ages five and older spoke a language other than English at home" (Zeigler & Camarota, 2019, p. 1). The Center for Immigration Studies (2018) recorded that the largest increase (up to four million) was among speakers of Spanish. This growth has had a direct impact on the nation's education system, the K-12 sector in particular. Schools have seen an increase in the number of "non-native English-speaking students, known as English Language Learners (ELLs)" (Bohon et al., 2017, p. 609). The problem that this research will address is the increasing number of secondary content area teachers who are teaching ELL (English Language Learner) students but have not received proper training during their preservice studies. As more ELL students join mainstream classrooms, teachers are facing challenges when delivering content. These challenges may stem from teachers lacking knowledge about ELL teaching strategies and theory.

ELL students enrolled in schools must be identified. "The No Child Left Behind Act of 2001 (the reauthorized Elementary and Secondary Education Act) requires all states to identify English language learners, measure their English proficiency, and include these students in state testing programs that assess academic skills" (Samson & Collins, 2012, p. 5). These students are usually identified upon enrollment in school. Some states utilize language surveys given at home to determine the child's primary language. If the primary language is not English, states will assess the child's English language proficiency using a standardized test (Samson & Collins, 2012). If a child scores below the determined English proficiency level, they "are identified as

ELLs and are entitled to appropriate services and instructional programs and funding until they demonstrate English proficiency on the states' annual assessment" (Samson & Collins, 2012, p. 5). Accommodations given to the identified students vary amongst states, however, "by federal law, classroom instruction must be modified to meet the needs of English language learners" (Samson & Collins, 2012, p. 5). These accommodations can consist of dual language instruction (students are taught in native and English language), or "structured/sheltered English immersion classrooms, where English is modified for ELLs, to mainstream classrooms, where ELLs receive ESL (English as a second language) support within the classroom (push-in ESL) or spend time in an ESL classroom (pull-out)" (Samson & Collins, 2012, p. 5). These services become more and more critical as the number of ELL students in classrooms increase.

From fall 2010- fall 2020, the number of ELL students in schools in the United States increased from 9.2% (4.5 million) to 10.3% (5.0 million) (National Center for Education Statistics, 2023). The three states in the U.S. that had 10% or more of their students classified as ELL were: Texas (20.1%), California (17.7%) and New Mexico (16.0%) (National Center for Education Statistics, 2023). New York is one of ten sanctuary states in the country and New York City has also been a sanctuary city since the 1980's (The 11 sanctuary states in the country, 2023). New York is among several states where the percentage of ELLs enrolled in schools is more than 6.0%, but less than 10.0% (National Center for Education Statistics, 2023). In the 2009-2010 school year, 7% of the total public-school population in New York consisted of ELLs (National Center for Education Statistics, 2009). In the fall of 2020, 9.4% of the total public-school population in New York consisted of ELLs (National Center for Education Statistics, 2023). That is a 2.4% increase in a span of ten years. Concurrently, "the federal government projects New York's student enrollment will grow by 2 percent by 2024" (Saunders, 2017, p. 3).

In summary, New York is expected to see an overall increase in student enrollment and has already seen an increase in ELL student enrollment.

According to the Education Commission of the States (2014), "it is beneficial for ELLs if states require ***all*** general education teachers to have some form of ELL training, regardless of whether they work with ELLs or not" (p. 1). Additionally, the Education Commission of the States (2014) explains that there are over thirty that "do not require ELL training for general classroom teachers beyond the federal government requirements, although some states appear to require teacher-preparation programs to provide training in working with ELLs" (p. 1). This is a cause for concern because as previously discussed, the entire country is experiencing a continuous increase in the number of ELL students in the K-12 system. An additional concern is the shortage of teachers both statewide and nationwide. It is estimated that the nation will need 1.6 million new teachers between the years of 2012 and 2020 (about 300,000 per year by 2020) (Saunders, 2017). New York has seen a decrease (11%) in the number of public-school teachers from the 2006-2007 school year to 2014-2015 school year; however, there is a 2% projected increase in student enrollment by the year 2024 (Saunders, 2017). With the student population increasing and the number of teachers in the field decreasing, there is also the issue of the number of ELL professionals in the field. Saunders (2017) displays data that shows as of 2017-2018, ELL education teachers was one of the five critical certification areas where New York State had a serious shortage (sixteen percent). Given this information, it is evident that the area of ELL education is suffering. It is therefore essential that the individuals who are pursuing a career in education be exposed to proper pedagogy to instruct this group of students.

Problem Statement and Rationale

The problem this research will address is of interest because content teachers who are not also TESOL (Teaching English to Students of Other Languages) certified or trained to work with ELL students are expected to effectively educate them. “Mainstream teachers who have not acquired any ESL (English as a Second Language) or ELL training are currently teaching ELLs" (Tran, 2015, p. 28). It is more than likely that these teachers do not have all the necessary pedagogical skills to do so. Content area teachers should have a working knowledge and understanding of oral language development, academic language, and cultural diversity and inclusivity (Samson & Collins, 2012). In terms of oral language development, teachers should know and understand the components of language: “sounds, grammar, meaning, coherence, communicative strategies, and social conventions" (Samson & Collins, 2012, p. 9). Teachers must also be able to discern between the types of language and how they are used in the classroom setting. Having a working knowledge between first and second language learning is critical as well. Teachers also need to know the “common patterns and milestones of second language acquisition in order to choose materials and activities that promote development” (Samson & Collins, 2012, p. 10). For ELLs to be able to communicate with teachers and peers, and be able to express their ideas and understanding, they need proper oral language development. “Teachers also need to have a sense of what signs to look for when ELL students struggle with language learning and communication, in addition to knowing how to assess or refer struggling students to the appropriate specialist” (Samson & Collins, 2012, p. 10). In some cases, an ENL student is also considered a SIFE (Students with Interrupted Formal Education). This student will be able to speak in their native language but may not be able to read or write in their native language.

Knowing what academic language is, and the type of academic language used in their content area is knowledge that teachers should possess. Recognizing the differences between conversational language (BICS - Basic Interpersonal Communication Skills) and academic language (CALP - Cognitive Academic Language Proficiency) is critical. Research has shown that "it takes ELLs longer than their non-ELL peers to become proficient in academic language" (Samson & Collins, 2012, p. 10). Understanding cultural diversity and inclusivity will allow teachers to better aid in student language development and academic achievement. Many social and cultural actions or "norms" of ELL students do not match those of their school setting. An example being, "cultural conventions that children learn in the home about eye contact, voice volume, or attributing work to an individual versus to the group, may conflict with the teacher's expectations in the classroom" (Samson & Collins, 2012, p. 10). This will often lead to confusion on the student's part and may give them feelings of isolation or loneliness. The understanding and appreciation of these differences on the teacher's part "help them to respond in ways that help to create a reciprocal learning environment" (Samson & Collins, 2012, p. 10).

In much of the United States, prior to completion of a preservice teaching program candidates need to pass a certification exam. In an ideal world, "the preservice programs and those certification exams would be aligned with student learning standards" (Samson & Collins, 2012, p. 13). It was found that there were "varied degrees of focus—none, generic, some, or specific— on key themes that are specifically relevant to ELLs, those being oral language development, academic language, culture, or diversity" amongst certification exams in states with high numbers of ELL students (Samson & Collins, 2012, p. 13). New York state requires teacher candidates sitting for the multi subject content specialty test, to be skilled in "recognizing the effective use of oral communication skills and nonverbal communication skills in situations

involving people of different ages, genders, cultures, and other personal characteristics" (Samson & Collins, 2012, p. 13). In the areas of academic language and cultural diversity there is "no mention and generic mention of these key ELL pedagogical skills," respectively (Samson & Collins, 2012, p. 13). All of these skills are critical for teachers to have for their ELL students at the elementary level, but even more so at the secondary level.

ELLs who enter school at the secondary level differ from those who enter school at the elementary level in more ways than age. ELLs at the secondary level tend to have a more difficult time in school compared to elementary students. In addition to learning the English language, they are required to learn specific content knowledge (i.e. math, science, social studies, etc.). If an ELL student enters school as a third or fourth grader, by the time they enter high school, they will have had at least six years of English compared to a student who enters school as a ninth or tenth grader who will have little to no English. In addition, many secondary students may have had interrupted education in their home country due to familial obligations and/or work. It is not uncommon for a student who is eighteen to be enrolled as a high school freshman, despite having only completed elementary school in their home country (Rubenstein-Avila & Hye Lee, 2014).

Rubenstein-Avila and Hye Lee (2014) explicitly state, "it behooves all educators to keep in mind that language-minority students encompass a very diverse group and that it is their constitutional right to be educated" (p. 187). It is therefore critical for secondary educators to be well versed to meet the needs of this portion of the student body. The purpose of this research is to determine preservice content area teachers' sense of self efficacy in the areas of instructional strategies, student engagement and classroom management toward ELL students, understand if preservice content area teachers' current standing in their preservice program is linked to their

survey responses regarding their effectiveness in teaching ELLs, and discern if preservice content area teachers' sense of self-efficacy vary depending on their standing in a preservice program in New York State.

Research Questions

> **RQ1.** Does preservice content teachers' sense of self-efficacy align to their perceived quality of their university program relative to ELL student instruction?
>
> **RQ2.** In which of the following areas, instructional strategies, student engagement, or classroom management, do preservice content area teachers feel most and least effective in ELL student instruction?
>
> **RQ3.** Is the preservice content area teacher's current standing- third-year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate, or first-year teacher- related to their responses regarding their effectiveness in ELL student instruction?

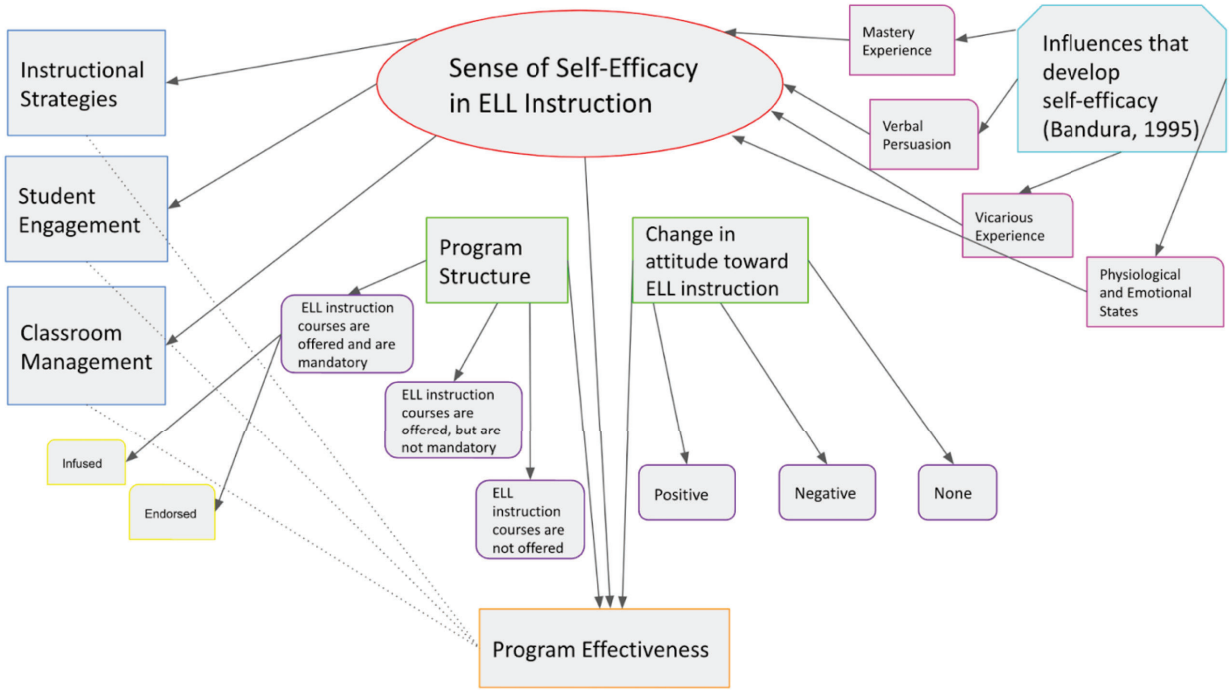
Conceptual Framework

The conceptual framework for this study was based on Albert Bandura's Self-Efficacy Theory. According to Bandura (1995) "perceived self-efficacy refers to the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). These beliefs influence people's thoughts, motivation and actions (Bandura, 1995). There are four main influences that can develop people's beliefs regarding their efficacy. The first is a mastery experience. Successes and failures can build up or undermine people's sense of self- efficacy (Bandura, 1995). The second influence is a vicarious experience. Seeing a person with similar characteristics persevere and succeed can influence one's self-efficacy beliefs. Self-efficacy beliefs can also be influenced by someone seeing a person with similar characteristics to themselves fail at a task (Bandura, 1995). The third influence is verbal persuasion. "To the extent that persuasive boosts in perceived self-efficacy lead people to try hard enough to succeed, self-affirming beliefs promote development of skills and a sense of self-

efficacy" (Bandura, 1995, p. 4) The final influence is one's physiological and emotional states. One's physical and emotional states (positive and negative) during tasks influence self-efficacy beliefs (Bandura, 1995). Bandura's theory has been applied to studies done involving preservice teachers in other countries. The theory of self-efficacy has been used to create scales that allow educational institutions to measure specific constructs. A study done at a university in Turkey utilizing preservice science teachers sought to determine participants' sense of self-efficacy beliefs regarding field trips, as well as if these beliefs vary by gender, class, secondary school type, and if the field trip was used in a highs school and in a university course (Koksal, 2018). Creation and utilization of this scale showed the multidimensionality (task efficacy, coping with problems efficacy, teaching efficacy, and pre-visit actions efficacy) of self-efficacy regarding field trips (Koksal, 2018). Researchers also determined that self-efficacy regarding field trips did vary in gender, class, secondary school type, and if the field trip was used in a high school (Koksal, 2018). Data like this is helpful to educators as it allows them to examine and alter their preservice courses as needed. Another study done in Turkey explored preservice teachers' self-efficacy perceptions of their writing skills during their undergraduate program. This mixed methods study found preservice teachers' perceptions of their writing self-efficacy increased from the beginning to the end of the program; however, there was no significant difference in the revising and editing processes (Aydin, 2019). This study based on the self-efficacy theory helped to shed light on challenges that preservice teachers faced in their studies. In addition to this theory, a review of literature, and a basic understanding of both quantitative and qualitative research methods has led to the creation of a conceptual framework (Figure 1).

Figure 1

Conceptual Framework



The importance of the conceptual framework lies in its purpose. It serves as a "conception or model of what is out there that you plan to study, and of what is going on with these things and why – a tentative *theory* of the phenomena you are investigating" (Maxwell, 2013, p. 39). It aids in the creation of research design and "helps you to *justify* your research" (Maxwell, 2013, p. 40).

This conceptual framework describes a topic in which there is still much to be learned. The problem of interest, "sense of self-efficacy in ELL instruction," is depicted in the red oval in the middle of the concept map. To the right of the problem of interest is teal shape with arrows leading to four fuchsia shapes. The teal shape holds a portion of Bandura (1995) self-efficacy theory, "the influences that develop self-efficacy." The arrows from the teal shape lead to the

fuchsia shapes that state the four influences that develop self-efficacy: mastery experience, verbal persuasion, vicarious experience, and physiological and emotional states. To the left of the problem of interest, there are three squares that depict the constructs of preservice teacher sense of self-efficacy in ELL instruction that will be measured; that is: instructional strategies, student engagement and classroom management. At the bottom of the concept map, there is an orange box that says, "program effectiveness." There is a dotted line going from the three blue boxes to the orange box because these are the measures of self-efficacy for this study. In addition to the arrow going from the red oval to the orange box, there are arrows going from two green boxes that say, "program structure" and "change in attitude toward ELL instruction" to the orange box. These more detailed items will help to determine program effectiveness and ultimately sense of self-efficacy. From the "change in attitude toward ELL instruction" box, there are three possibilities for participants: positive, negative and none. From the "program structure" box, there are three arrows, which illustrate three possible structures of preservice teacher programs: do not offer ELL pedagogy courses, ELL pedagogy courses are not mandatory, and offer mandatory ELL pedagogy courses. From the box most left come two arrows which point to boxes that illustrate the two types of course structures that can be offered to preservice students to learn ELL pedagogical skills: infused and endorsed. The creation of this conceptual framework will lead to a quantitative research study done about the problem of interest.

Definitions

Self-Efficacy - "refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p. 2).

English Language Learner (ELL) - "students who are unable to communicate fluently or learn effectively in English, who often come from non-English-speaking homes and backgrounds, and

who typically require specialized or modified instruction in both the English language and in their academic courses" (Sabbott, 2013, p. 1). *This term is interchangeable with ENL and ESL.

Preservice Teacher - "student enrolled in a teacher preparation program who must successfully complete degree requirements including coursework and field experience before being awarded a teaching license" (Chand et al., 2022, p. 116).

Chapter II: Literature Review

The purpose of this literature analysis is to explore the research that has been done that addresses the problem stated in chapter one and to identify any gaps that exist in that research. There have been numerous studies done that indicate feelings of ill preparedness among secondary content teachers, as well as lack of adequate instructional skills regarding ELL instruction. Additionally, research has shown the positive effect that preservice programs offering courses containing ELL strategies/theory have had on preservice teachers. There are also a number of studies that explore the ways in which university instructors acquired knowledge regarding ELL pedagogy. Due to changing state requirements, many teacher educators had to incorporate ELL pedagogy into coursework. Some teacher educators simply infused ELL strategy/theory into their methods courses, while others restructured their preservice education programs entirely to include ELL training. Results have shown that these preservice teachers who received ELL instructional training feel they have better knowledge and skill sets necessary to educate ELL students.

The review of literature will first explore teacher attitudes and beliefs about ELL instruction. This section covers attitudes and beliefs of both primary teacher educators and secondary teacher educators. The purpose of this section is to explore the ideas of bias, predispositions, and negative associations of preservice teachers towards ELL students. The next section will explore the necessary components of ELL training courses (i.e. program structure). Within this section, infused and endorsed programs will be explored, as well as specific strategies taught in those courses. The next section is composed of studies done at universities where teacher educators had to redesign courses and prepare to teach their students about using ELL strategies. Other studies focus on the way in which universities restructured their preservice

education programs to include specific ELL methods courses. The purpose of the second and third sections is to identify the basic skills that ELL students need to be successful in the classroom and how those skills are incorporated into certain university programs. The fourth section will discuss the specific preparation of content area teachers to teach ELL students. This area is of particular interest because the major subjects all contain academic language consisting of specific terms and vocabulary. The studies discussed will show how preservice programs are preparing this particular group of educators for ELLs in the classroom. The final section will explore the various instruments created to measure teacher self-efficacy and cultural awareness. A discussion where implications for further study and the impact of findings on the educational community will follow the examination of the literature.

For this review, empirical, peer-reviewed studies on the preparation of preservice mainstream teachers to teach ELL students was sought. Research on the preparation of bilingual and ESL (English as a second language) teachers was not included because these individuals receive specific training regarding ELL instruction in their teacher education programs. The focus of this study is content area (math, science, English, and social studies) teachers. Studies published 2010-to the present, a time during which some states began to require specific ELL training for general educators and a time during which a shortage of teachers in the ELL field occurred was sought. This search was limited to U.S. studies, as the country is experiencing an increasing number of non-English speaking students in the education system. Electronic databases such as: ERIC, Academic Search Complete, Education Full Text and Google Scholar, were used to search for literature. Searches consisted of combinations of the following key words: *preservice teachers, content teachers, ELL, ESOL, preservice training, secondary teachers, preservice education programs, self-efficacy, English Language Learners.* This

strategy yielded hundreds of results. Many choices were removed after a preliminary review because they strayed from the focus of the research. Some of the articles focused on preservice programs out of the country and EFL (English as a foreign language) education. Other articles included inservice teacher views/attitudes and professional development programs for teachers already in the field. Then there were some articles that focused on the preparation of bilingual/ELL preservice teachers. At the end of the process, there were thirty-five studies chosen for this review. These articles were summarized and grouped into categories based on themes.

Teacher Perceptions, Attitudes and Beliefs About ELL Students and Instruction

Researchers reported on six cases from a larger qualitative multiple case study done in Australia in order to answer two questions: "1. What do subject teachers report as good practices for ELLs learning in their content area? 2. To what professional learning do teachers attribute their beliefs and practices about teaching ELLs?" (Gleeson & Davison, 2016, p. 2). Teachers from selected cases were in different phases of their teaching careers and had different subject specializations. Analysis showed that many participants sought knowledge and advice regarding teaching ELLs from their experienced colleagues, especially newer teachers (Gleeson & Davison, 2016). Some teachers felt that they were equipped with enough knowledge and skills to teach ELL students based on the number of years they worked with this population. A first-year teacher was following suit of some veteran teachers by reflecting on her classroom practices to improve her skills as opposed to enrolling in professional development (Gleeson & Davison, 2016). This study adds to the body of research that explores teacher beliefs about ELLs and teaching practices for ELLs, as well as how years of teaching and preservice experiences can shape those beliefs.

Kolano and King (2015), explored how a course utilizing narratives to engage teacher candidates in self-reflection affected their beliefs towards English Language Learners. There were forty-three undergraduate students, with concentrations in Elementary or Special Education, who were required to take a course that was designed to help them work with ELLs (Kolano & King, 2015). This course focused on strategies for teaching ELLs, the reading of supplemental books, watching documentaries on the journeys of immigrant groups, and a 25-hour field experience in a school where the population was LEP (limited English proficient). In their final paper, students "were asked to reflect on the evolution of their understanding of immigrant communities: 'How has your understanding of ELLs and teaching diverse immigrant communities evolved over the course of this semester?'" (Kolano & King, 2015, p. 8). Results showed that the experiences that had the most influence on student's shift in beliefs about ELLs were clinical experiences (working with ELLs (1), the documentaries about immigrants coming to the U.S. (2), class lectures and discussions (3), strategies to teach ELLs (4), one of the books read (5) and a lesson planning strategy (6) (Kolano & King, 2015).

The specific areas where students experienced a shift in beliefs are as follows: (1) limited prior knowledge; students realized they had limited knowledge about working with ELLs. (2) Understanding diversity in the classroom; students had not previously considered how language, culture and schooling are all connected. (3) Gained confidence in new skills; teacher candidates no longer felt uneasy or insecure about working with ELL students. (4) New informed understandings of immigration and language maintenance; student beliefs structures about their understanding of immigration changed, as well as language identity. (5) A new desire to work with ELLs; after this course, students expressed a new desire to work with ELL students (Kolano & King, 2015). After the data were analyzed, there were only two students who did not express a

change in their beliefs. However, there were about twelve students who left the course with a completely new perspective on ELLs. Though this was just one course over one semester, the results strongly support the impact just one course can have on teacher candidates. The next study that will be discussed took a different approach to examining preservice teacher beliefs.

Harrison and Lakin (2018) studied a group of preservice teachers with "little direct instruction regarding ELs" (p. 61). Harrison and Lakin (2018) sought to "replicate and extend implicit attitude research utilizing the Implicit Association Test – EL to preservice teachers" (p. 56). "The Implicit Association Test (IAT) is a computer-based test which involves making rapid judgments about stimuli presented to participants on a screen" (Harrison & Lakin, 2018, p. 56). "A typical IAT has participants press separate keys on the keyboard to correspond to word associations presented on the screen" (Harrison & Lakin, 2018, p. 57). 116 preservice teachers (more than half were Elementary) from a large, southeastern university, participated in the IAT. Researchers wanted to use this IAT in order to quantify implicit attitudes. Participants were given three practice sessions with IAT to become familiar with the format and procedure. Of the 116 participants, 102 completed the explicit attitudes survey and 71 completed the IAT-EL (Harrison & Lakin, 2018).

It was found that participants held slightly positive implicit beliefs about ELs, and that there was a negative correlation between implicit and explicit beliefs about ELs. Preservice teachers with more positive beliefs toward ELs had more confidence that they would be supported by school administration (Harrison & Lakin, 2018). Researchers found it surprising that preservice teachers who declared more positive attitudes toward EL students had more negative implicit associations with EL students than other preservice teachers (Harrison & Lakin, 2018). Authors indicate the fact that this group of students had little experience with ELs, but

overall positive attitudes, is encouraging. Like the previous study, this study demonstrates the benefits of giving preservice teachers the opportunity to reflect upon their beliefs and attitudes about the students they will encounter in their careers. The following studies will explore the attitudes and beliefs of secondary education teachers.

Durgunoglu and Hughes (2010) conducted a study where they "explored self-efficacy and knowledge of preservice teachers in order to determine how prepared and confident they were for teaching ELL students who are likely to be in their future classrooms" (p. 32). Two studies were done at a medium sized, midwestern university in the United States. Sixty-two preservice teachers participated in the first study. These students had "at least 180 hours of classroom experience, had successfully completed two required courses about diversity and completed sixty hours in a diverse classroom setting" (Durgunoglu & Hughes, 2010, p. 34). Participants answered twenty-seven questions pertaining to their attitudes, beliefs and self-efficacy in random order based on a survey by Darling-Hammond et al. (2002) (Durgunoglu & Hughes, 2010). Results of the first study showed that preservice teachers had positive attitudes about ELLs and their parents. Preservice teachers had neutral views about preparedness and self-efficacy. Authors viewed this neutrality as negative "because these participants had completed their teaching education, as well as diversity training and were doing their student teaching and still they did not feel well-prepared to address the needs of ELLs" (Durgunoglu & Hughes, 2010, p. 35). Their prior student teaching experiences were of no help in a setting with ELLs. The results of part one of this contradict the results of the other studies that were previously discussed. However, this study differs from those because secondary teachers were the focus group.

In study two, four Caucasian female preservice teachers from study one were observed in the classroom. These individuals were student teaching in a high school. Data for this study was a sixty-one-item observation checklist. This checklist "was used to more specifically document the use (or non-use) of the types of general teaching strategies, content delivery methods, assessment procedures, and language strategies incorporated in the lesson" (Durgunoglu & Hughes, 2010, p. 36). A total of ten observations were done amongst the four individuals. Three themes arose from the observations: Neglect (no interaction between ELL student and preservice teacher), Peer support (other students in the class helping ELL students), and no mentoring by supervising teachers (cooperating teachers were not providing preservice teacher with support in isolated ELL classrooms) (Durgunoglu & Hughes, 2010). The results of study two allude to some weaknesses in the field experience component of the preparation course. Field experiences discussed in previous studies all proved to be beneficial to teacher candidates.

A literature review done by Rubenstein-Avila and Hye Lee (2014) sought to answer two questions: "1. What are secondary teachers' attitudes toward English Language Learners and 2. To what extent are secondary teachers being prepared to teach content effectively to this student population?" (p. 188). When searching for literature, authors used ERIC and Academic Search Complete. Authors searched for literature in the date range of 2001 – 2012. The key words put in the search bars were: "*teacher preparation, English Language Learners, staff development, high school, middle school, attitudes, perceptions"* (Rubenstein-Avila & Hye Lee, 2014, p. 188). The literature synthesis revealed that secondary teachers hold a range of attitudes, though overall, welcoming. Some teachers consider themselves teachers of all children and others feel that teaching content is their responsibility, nothing more; it is the EL teacher's job to teach ELL students English (Rubenstein-Avila & Hye Lee, 2014). These varying attitudes depended upon

the type of school and community context. Results also indicated that single subject teachers receive limited preparation for ELL students, and many teachers in the field do not receive professional development training leading to a lack of awareness of the needs of ELLs (Rubenstein-Avila & Hye Lee, 2014).

In their study, Torres and Tackett (2016) sought to develop a "more thorough understanding of preservice teacher beliefs regarding their abilities to effectively educate ELLs they may encounter in their future classes" (p. 189). Research took place at the College of Education at a university in southeastern United States. 199 preservice teachers (90% undergraduate and 10% graduate) participated. More than half of these students (53%) had prior experience working with ELL students (Torres & Tackett, 2016). Data was collected using *English as Second Language Students in Mainstream Classrooms Teacher Survey* from Reeves (2006, as cited in Torres & Tackett, 2016). The survey contained questions regarding inclusion of ELLs, specific instructional behaviors, anticipated challenges in working with ELLs, benefits of ELL students in subject classes, and demographic/teaching experiences (Torres & Tackett, 2016).

Participants who completed coursework that focused on ELLs or who participated in field experiences with ELLs "were more likely to provide higher ratings in their abilities to effectively educate (i.e. support for including ELL accommodations in mainstream classrooms) ELLs" (Torres & Tackett, 2016, p. 191). Participants felt that "the two greatest obstacles to educating ELLs were due to language barriers and lack of time and resources to devote to ELLs" (Torres & Tackett, 2016, p. 193). Results of this study speak to the strength of having preservice teachers work directly with ELLs as a part of their preservice training. Many of the previous studies found that field experience was beneficial for preservice teachers.

Tran (2015) carried out a mixed-methods study in order to "address teachers' knowledge and perceptions in their preservice course experiences as well as teachers' efficacy beliefs in relation to ESL methodologies, multicultural education and cultural/linguistic diversity" (p. 31). The candidates for this study consisted of teachers with five or fewer years of teaching experience from two districts in Texas. Quantitative data were collected from a survey consisting of open and closed-ended questions about perception and efficacy were used. These questions were divided into four categories: culture, teaching strategies, teaching behaviors and assessment practices (Tran, 2015). 144 participants completed the survey. The qualitative portion of this study was a case study, which consisted of five of the individuals who took the survey: Timothy, Lulu, Antonia, Thelma and Matthew. Three subjects were female and two were male. Two identified Latina and three identified Caucasian. Four of the subjects taught at the elementary level and one at the secondary level (Tran, 2015). Data were collected through interviews and classroom observations. Participants discussed preservice programs, field experience and additional courses taken on their own terms. It was found that each participant had a different preparation experience when compared to other candidates. Some candidates received ELL classes during their preservice program, while others enrolled in ELL courses separate from their preservice programs. Based on the quantitative data, Tran (2015) found that teachers who were enrolled in preparation programs with ELL methodologies felt more effective in the classroom compared to teachers who did not receive ELL methodologies in their coursework. Similarly, qualitative results "indicated that specific courses and training around ESL methodologies in pre-service contexts greatly influenced teachers' efficacy" (Tran, 2015, p. 38). The results of this study, which highlight the benefits of specific ELL methodology training, as well as field experience, align with those of Torres and Tackett (2016).

Summary

Thus far, the beliefs, attitudes, and perceptions of both elementary and secondary preservice and in-service teachers about teaching ELLs have been discussed. Studies show a variety of positive and negative teacher attitudes and perceptions toward ELL students, as well as the value of experience with this group of students is, in terms of teacher confidence. This next section discusses preservice teacher program structure honing in on endorsed and infused courses, as well as in what areas preservice teachers should have a working knowledge in order to teach ELL students.

Preservice Teacher Program Structure

There are many preservice teacher programs throughout the country. Nguyen (2018) states that these programs share "certain common modules" (p. 77). These modules include foundation courses, educational psychology, and history. Those candidates who are seeking specific certifications (science, math, social studies, etc.) would then take courses to prepare them to teach content classes (Nguyen, 2018). Finally, field experience is a requirement of most teacher preparation programs. While these features are common among teacher preparation programs, variation still exists. These variations "lay in instructors'" established course objectives and different program components or structures" (Nguyen, 2018, p. 77). Changing times and student populations call for another module to be added to teacher preparation programs, a module that integrates multicultural social components, as well as ELL pedagogical skills.

As previously stated, "there are over thirty states that do not require ELL training for general classroom teachers beyond the federal government requirements, although some states appear to require teacher-preparation programs to provide training in working with ELLs"

(Education Commission of the States, 2014, p. 1). The structure of each of these teacher-preparation programs that requires ELL training varies in terms of structure and pedagogy. Some programs have "*infused"* courses and others have *"endorsement"* programs. *Endorsed* programs "prepare teacher candidates in teaching and assessing ELLs such as Elementary Education and English Language Arts Education and award the ESOL endorsement after 300 hours of ESOL education while *infused* programs prepare teacher candidates enrolled in Science Education, Mathematics Education and Social Science Education, and the 60 hours of education in ESOL is infused throughout the required coursework" (Peker, 2019, pp. 262-263).

There is little to no continuity in preservice teacher programs across the United States. Those states with higher ELL students (Texas, Florida, California, New York) all differ in terms of teacher preparation program structure. It is imperative that the content area teachers receive the necessary skills to teach ELL students. These teachers should have a working knowledge and understanding of oral language development, academic language, and cultural diversity and inclusivity (Samson & Collins, 2012).

A study done by Coady et al. (2011) sought to determine how an infused ESOL (English for Speakers of Other Languages) course prepared graduate students from an elementary teacher education program *(Just Teach)* to teach ELL students. This study was done in Florida. At the time, Florida was one of three states in the country where all teachers were required to be trained to teach ELLs (Coady et al., 2011). In the *Just Teach* program, "students take two or three ESOL specialist courses taught by ESOL bilingual faculty; additional ESOL teacher performance standards are addressed in other general education courses" (Coady et al., 2011, p. 225). In addition to the courses, teacher candidates were also required to participate in "approximately 20

hours of clinical/field experience with ELLs in a variety of instructional and extracurricular activities" (Coady et al., 2011, p. 228).

A two-part survey was distributed to teacher candidates. The first section consisted of a variety of open-ended questions and the second section "consisted of 49 statements of teacher knowledge and skills related to effective instruction of ELLs" (Coady et al., 2011, p. 228). Results of the survey indicated that teacher candidates felt most prepared to "provide additional wait time" for ELL students during instruction. Teacher candidates felt least prepared to "use students' home language as a resource in their teaching" (Coady et al., 2011). Results also indicated that recent graduates of the *Just Teach* program had higher ratings of "preparedness" to teach ELLs than graduates of earlier years. Findings show that "an infused model of preservice preparation in which explicit, ESOL-focused courses and field experiences are combined with additional course work in which ESOL competencies have been infused [are] useful to an organization" (Coady et al., 2011, p. 236).

A year after Coady et al. (2011) conducted research on an infused model, a study done at a large public university located in a metropolitan city in the southwest United States looked to determine how endorsement curricula built self-efficacy of preservice teachers. As a result of the growing ELL population in this state (not specified), "the department of education instituted an endorsement policy mandating that all teachers, both preservice and inservice, take a course that trained them to teach ELLs in order to receive initial certification or maintain their teaching credentials" (Jimenez-Silva et al., 2012, p. 14). The state gave the universities specific topics that needed to be taught. The universities could structure and teach their courses however they wanted so long as the state-specific topics were covered. This university designed courses so that preservice teachers developed "an understanding of the theory, policy and methods of working

with ELLs" and could "make meaning of their knowledge and experiences through interactive methods (Jimenez-Silva et al., 2012, p. 14). Courses included theoretical texts, and lectures about language acquisition, literature circles, instructional methods for ELs (English Learners), and how EL culture and background influence learning. Students also had to participate in a field placement experience where they were in a diverse, low-income classroom for sixty-five hours (Jimenez-Silva et al., 2012). Teacher candidates were required to complete a case study of an English Language Learner as part of their coursework.

The group of focus consisted of 197 preservice teachers enrolled in an undergraduate "Structured English Immersion" course within the elementary or secondary certification program. Researchers used a survey created in a previous study, "a 4-point Likert–type scale ranging from *very to not at all"* (Jimenez-Silva et al., 2012, p. 17). This scale was used to determine how the methods taught to teacher candidates affected their efficacy in working with ELLs and how confident they believed they were when working with ELLs. The methods taught in the courses were: instructional strategies, group activities, instructors, peers, course assignments/papers, classroom lectures, textbooks, PowerPoint presentations and research articles. Results showed that the instructional methods presented to teacher candidates were "very to somewhat helpful" (Jimenez-Silva et al., 2012, p. 18). A helpful method found was the teaching of specific instructional strategies for ELLs (Jimenez-Silva et al., 2012). Students reported feelings of high self-efficacy by the end of this course. Students also reported high confidence levels at the end of this course as well (Jimenez-Silva et al., 2012). As in the previous study, this study indicates that the combined instructor/field-placement model proved to be beneficial to preservice teachers.

Jimenez-Silva et al. (2012) state that "much of the methods and instruction taught in teacher education programs is separated by subject matter, making it difficult to help preservice teachers understand that why they learn in the endorsement course should transfer across the curriculum in future courses" (p. 25). This becomes an issue in subject specific methods courses like math and science, where content is the focus. Jimenez-Silva et al. (2012) explains that "teachers need to understand how to use their knowledge of ELLs as well as their knowledge of each content area and integrate it to meet the needs of all students, which includes ELLs" (p. 25). Results of this study are similar to those of Coady et al. (2011), which showed that courses with infused ELL strategies were more beneficial to preservice teachers.

Field experiences were components of the preservice programs discussed in the previous two studies. In both studies, field experience was valuable in the preparation of preservice teachers to teach ELL students. Schneider (2019) conducted a study at a College of Education in the southeastern U.S. This individual sought to determine the effect that a mandatory-field based course had on a group of sophomore teacher education majors. This course that teacher candidates were enrolled in was an infused ELL preparation course. There was a lecture component and a field placement component to the course. During the lecture portion of the course, students were introduced to "the realities and needs of ELs in public schools" (Schneider, 2019, p. 44). They became aware of the cultural and linguistic difficulties that ELL students face and learned ways that they could support and help these students learn English. The goal of this course "was to challenge and raise preservice teacher awareness of the specific needs and gifts of ELLs brought to general education classrooms" (Schneider, 2019, p. 44). During the second component of the course, students gained field experience. "Students spent five mornings (3.5 hours each day) in a host teacher's classroom to observe, reflect and engage in co-teaching ELs

with a host teacher" (Schneider, 2019, p. 44). At the end of their experience, each student had to write a case study describing their experience.

Two types of data were collected for this study: student written reflections on realities and realizations about ELs and a four question Likert scale self-reflective survey. Results of the written reflections showed that all participants "were able to not only effectively identify and reflect upon two or three relevant and well supported realities of ELs but were also able to identify at least one preconceived notion for which they described how it shifted as a result of the course" (Schneider, 2019, p. 49). The end-of term survey showed that students found their field placement experiences valuable. "91 percent of all survey responders (N=32/35) reported an appropriate or significant increase in awareness of ELL-specific needs and skills to address the challenges of language ambiguities for ELs. 89 percent of all responders (N=31/35) reported appropriate or significant increase in advocacy skills for ELs" (Schneider, 2019, p. 49). The results of this study support those of Coady et al. (2011) and Jimenez-Silva et al. (2012), which both highlight the benefits of an ELL training course that contain both a theoretical component and a practical (field experience) component. In addition, there is strong evidence indicating the benefits of exposing the needs of ELs to preservice teachers early in their educational program through both lecture and field placements.

Peker (2019) took the research done on infused and endorsed programs a step further and compared the two models in a study. Peker (2019) sought to identify the effectiveness of endorsement and infusion model ELL training courses on teacher candidates. As previously states, *endorsed* programs "prepare teacher candidates in teaching and assessing ELLs such as Elementary Education and English Language Arts Education which award the ESOL endorsement after 300 hours of ESOL education while an *infused* program prepares teacher

candidates enrolled in Science Education, Mathematics Education and Social Science Education, and the 60 hours of education in ESOL is infused throughout the required coursework" (Peker, 2019, pp. 262-263). Teacher candidates from various counties in Central Florida completed preservice observations and participated in field experience. At the end of the field experience, teacher candidates administered ELL students in their field placement post-test. 700 ELL students were selected to participate in the post-test survey given by teacher candidates (Peker, 2019). In addition to administering a post-test survey, teacher candidates also answered a 16-item questionnaire based on their post- test results (Peker, 2019). Results of Factorial ANOVA statistics showed that the endorsement models were better than infusion models in addressing ELL student needs (Peker, 2019). The results of this particular study contradict results from previously discussed studies. Jimenez-Silva et al. (2012), Coady et al. (2011), and Schneider (2019) reveal the strengths of an infused program. However, researchers made it a point to note that this study only covered "one state and some schools in the state, so it cannot be generalized" (Peker, 2019, p. 267).

The above research suggests that program models can play a role in how well preservice teachers are prepared to teach ELL students. It is critical that programs are giving their teacher candidates the necessary skills to teach ELLs. Jimenez-Silva et al. (2012) identify these necessary skills: "(a) an understanding of basic concepts in second language acquisition; (b) the nature of language proficiency; (c) the demands that mainstream education places on culturally diverse students; (d) the role first language and culture in learning; (e) the capacity to make academic content accessible; (f) the ability to integrate content and language instruction; (g) an understanding of how differences in language and culture affect students' participation in the classroom; (h) an understanding of how differences in language and culture affect students with

limited schooling; (i) an understanding and ability to work with students whose families may have little knowledge of U.S. schools; and (j) a belief in students as individuals and an understanding that their limited English is not a deficiency" (p. 13).

A study done by Ramirez et al. (2016) expresses the need for teachers (secondary in particular) to possess specific skills in order to effectively teach ELL students. He listed a variety of characteristics and practices that effective secondary ELL teachers should possess in order to effectively teach ELL students. First "secondary teachers must understand the process through which adolescent ELs become proficient in English while ELs are also learning academic content" (Ramirez et al., 2016, p. 23). In addition, "teachers should also provide multiple opportunities for ELs to develop and apply their social and academic language in varied contexts, such as heterogeneous small groups and homogeneous learning communities" (Ramirez et al., 2016, p. 23). Implementing theme-based lessons, as well as engaging and building student's background knowledge are two more practices of effective secondary ELL teachers according to (Ramirez et al., 2016). Finally, teachers should "possess knowledge of the legalities surrounding EL education in order to advocate on behalf of ELs" (Ramirez et al., 2016, p. 23).

Researchers performed a study chronicling the manner in which secondary preservice teachers better understood secondary ELLs during a one-year residency project. The study took place in an urban high school in Arizona. Six preservice teachers with varying content focuses conducted research with ELLs for a period of ten months (Ramirez et al., 2016). This research was a part of a course that one of the researchers taught. In this course, preservice teachers both examined and reflected upon issues that impact the lives of ELs and effective teaching practices

for this group of students (Ramirez et al., 2016). Students participated in class discussions and were out in the field for the duration of this course.

Data was collected in various forms: interviews, classroom observations, artifacts and group interviews. Data were analyzed and coded in order to produce themes. The four themes that emerged were: *teacher consciousness, language matters, developing language in meaningful contexts* and *multicultural (forbidden) resources* (Ramirez et al., 2016). Under the theme of teacher *consciousness,* researchers found that "many of the preservice teachers in this study were influenced by classroom observations, student interviews and relationships they formed with secondary EL youth" (Ramirez et al., 2016, p. 25). In terms of *language* and *developing language in meaningful contexts,* preservice teachers better understood the significant role language plays in EL learning, as well as the significance of language at home and out in the community (Ramirez et al., 2016). Finally, preservice teachers realized how critical adequate resources are in properly educating ELs. Through their discussions and field experiences, participants in this study demonstrated a shift in their thinking regarding ELLs and were able to implement successful ELL teaching strategies into their field placement experience. The course that was examined in this study further supports the importance of having both classroom and field experience for preservice teachers learning to work with ELL students.

Researchers have gone a step further in exploring what skills in particular teachers need to teach ELL students and what characteristics help in ELL student learning. Researchers reanalyzed data from two independent studies: a case study done by O'Hara and Achinstein in 2011 and an empirical Delphi study done by Prichard and O'Hara in 2013. Researchers sought to answer two questions: "1. What do expert scholars and experienced practitioners identify as knowledge and instructional moves needed to support the academic language development of

ELLs? 2. How, if at all, is academic language development for ELLs reflected in the professional development of new teachers during exchanges with mentors?" (O'Hara et al., 2020, p. 28). Cross-case analysis of the two studies was done. Researchers identified three themes that answered the first research question: foundational knowledge of academic language for ELLs, the art of scaffolding and guiding academic language development and negotiating a balance between explicit and immersive academic language instruction (O'Hara et al., 2020). Analysis of a mentor – mentee exchange indicated increased knowledge of academic language development for ELLs by the mentee (O'Hara et al., 2020). Implications for this study support the type of mentoring needed by content teachers of ELL students, as well as the need for content area teachers to have foundational knowledge of academic language acquisition of ELLs.

Several studies have explored the benefits of acquiring ELL pedagogical skills during preservice training. In a qualitative case study done in a rural area of the United States, researchers sought to answer the question: "What meaningful learning experiences did the embodied lesson afford the preservice teacher learners?" (Guerrettaz et al., 2020, p. 9). Preservice teachers participated in an embodied (concept or feeling related to something is made emotionally or physically tangible) lesson that spanned over two 90-minute days of consecutive classes. Preservice teachers completed a series of tasks: free writing, timed reading, acting and homework timed reading; participants shifted between the roles of ELL students and reflective educators when completing these tasks. Findings revealed that through the embodied lesson, language pedagogy learning, meaningful experiences and feelings of empathy toward ELL students were all made tangible for the students (Guerrettaz et al., 2020). This study supports the need for preservice teachers to have more experiences like this during their preservice training.

Summary

Colleges/universities across the United States structure their preservice teacher programs differently in terms of ELL pedagogical instruction; some are infused programs, some are endorsed, some offer field experience, some do not and some simply don't offer their students courses to acquire ELL pedagogical skills. Regardless, there are specific skills teachers need to possess in order to adequately teach ELL and the discontinuity of preservice teacher program structure does not allow all preservice teachers to acquire those skills. There have been several programs in several states that have had to restructure their programs and/or educate their educators on how to teach ELL skills to their teacher candidates. The next section explores these ideas.

Higher Education Leadership and ELL Courses

Roy-Campbell (2013) sets the stage for her study by describing an encounter she had with a teacher. The teacher's administrator assigned them a class of high school ELLs. The administrator assured the teacher that the class would be much like a study hall class. ELL students could draw or color while the rest of the class went on with the lesson (Roy-Campbell, 2013, p. 256). Roy-Campbell (2013) explains that one of the reasons that teachers do not have the knowledge to work with ELLs is because "the educators who prepare these teachers do not provide them with this knowledge because they themselves have not received this preparation" (p. 256). Roy-Campbell (2013) sought to provide insights from teacher educators (particularly in the literacy field). Such insights included how well they themselves were prepared to teach their students about ELLs and how their classes are structured so that their students get the most out of their instruction. Participants in this study were teacher educators who prepared ELA teachers and who were members of LRA (Literacy Research Association) from all over the country.

There were 12 full professors, 14 associate professors, 15 assistant professors, 5 adjunct faculty and 4 graduate students who completed the researcher's survey. The survey consisted of a total of nine questions: three about demographics (educational status, years of teaching, etc.), four questions about the knowledge educators have in addressing the needs of ELLs in general-education classrooms, and two questions about what teachers and the educators who prepare teachers need to know about ELL students (Roy-Campbell, 2013).

Most teacher educators (61%) received ELL preparation at conferences/workshops and independent reading/research. 18% of educators had received some coursework related to ELLs, and 16% of the teacher educators indicated that they had no preparation (Roy-Campbell, 2013). When it came to prepping their own students to meet the needs of ELLs, 40% of teacher educators indicated that they include readings/strategies in courses that address ELL student needs. Forty-three respondents felt that "information about working with ELL students should be incorporated into methods courses," while forty respondents proposed that "there should be specific courses as well as incorporation into methods courses" (Roy-Campbell, 2013, p. 269). The results of this study emphasize the importance of teacher educators possessing adequate knowledge of ELLs and their classroom needs to properly educate teacher candidates. This study focused on only literacy teachers. The next study explores faculty members at other universities in the country receiving professional development so that they were better prepared to teach ELL skills to teacher candidates.

In this next study, a professional development program for secondary content teacher educators was utilized to better equip secondary teacher candidates to support the academic and social needs of English Language Learners. Seventy-five full time and adjunct faculty at an urban university in California took part in this professional development program (Nguyen et al.,

2013). The program consisted of seminar sessions “centered on theories of how ELLs acquire English language and content and effective methods and strategies for supporting these students’ academic and social development” and content-specific observations where “participants spent 15 hours (spread over 16 weeks) observing district-identified exemplary teachers” (Nguyen et al., 2013, p. 307). The final portion of the professional development session allowed for faculty to converse with educators from other disciplines to revise their syllabi and assignments to include ELL theory/pedagogy. Data were collected in forms of pre- and post-professional development surveys, observation reflections, revised syllabi/assignments, and interviews.

Results indicated growth for all faculty members in knowledge, skills, and beliefs/attitudes about ELLs and confidence in meeting needs of future instruction. Participants understood the correct usage of aligning ELD (English Language Development) standards to ELL proficiency (Nguyen et al., 2013). The revised syllabi showed how educators reexamined students' learning outcomes to ensure specific needs of ELLs were addressed. Participants showed growth in their beliefs regarding ELL instruction. They realized the importance of understanding the specific needs of ELLs. Finally, results indicated an increase in confidence of teacher educators to meet ELL needs (Nguyen et al., 2013). Teacher educators found reading and seminar optics essential to their development in understanding ELLs. They also valued cross-disciplinary collaboration. Educators expressed that one of the most valuable parts of the program was the 15-hour observation with exemplary teachers (Nguyen et al., 2013). Results of this study show the benefits associated with educating teacher educators on meeting the needs of ELL students. The way that this professional development program was structured was very similar to how programs in the previous section were structured (part theory/methods and part field observations). This study further confirms the strength of this type of program structure to

educate individuals on understanding and meeting the needs of ELL students. As ELL student numbers rose in certain states, there were teacher educator programs that took the initiative and restructured their preservice teacher programs so that teacher candidates would be better prepared once they entered the field.

Jimenez-Silva et al. (2016) examined changes in a preservice program in Teacher College at Arizona State University to assist future teachers to work with ELL students. As the state's number of ELL students increased, the Teacher College set a goal "to prepare elementary teachers on content-based second language acquisition" (Jimenez-Silva et al., 2016, p. 77). The college adapted the iTeach ELL framework that demonstrates how students, student effort, teacher candidates, university support and university partnerships are all connected. Participants in this study were Dr. Jimenez-Silva, second language acquisition professor, Dr. Rillero, a science methods professor, and Dr. Merritt, a science methods professor. These individuals met weekly throughout the year 2015 in order to achieve curricular reform and determine the value of collaboration among educators of different disciplines (Jimenez-Silva et al., 2016). Data were collected in the form of notes from discussions, meetings, meeting agendas and possible lesson plan templates. Data were analyzed and separated based on theme. The three main themes emerged from data analysis were: Value of Agreeing on Terms, Value of Integrating Content and Language Learning, and Value of Presenting a Unified Message (Jimenez-Silva et al., 2016). The "Value of Agreeing on Terms" theme explains the decision on the use of certain terms in the new curriculum. For example, "the differences between project-based learning and problem-based learning had to be discussed as these terms are often used in similar ways in various circles" (Jimenez-Silva et al., 2016, p. 83). The second theme "Value of Integrating Content and Language Learning" explains the need to address the importance of both content goals and

language goals. “It was realized that in order to support ELLs in mathematics and science classes, there is language that students would be learning as a result of teaching, but also there would be language that student would need in order to engage in experience” (Jimenez-Silva et al., 2016, p. 83). The final theme, “Value of Presenting a Unified Message” explains the importance of presenting a unified stance on the reform and effectively communicating its value. This study shows a university taking steps to incorporate ELL pedagogical knowledge and skill courses into their preservice program. By doing this, teacher educators were able to identify preservice teacher strengths and weaknesses in terms of ELL knowledge and can lead to better preparation for teachers as they enter their own classrooms. Not every state prepares their preservice teachers to teach ELL students in the same manner. The next study demonstrates how much variation exists in the programs across the country.

Hallman and Meineke (2016) conducted a study that collected data from ELA teacher educators across the United States. The purpose of their study was to gain perspective from these educators on “how teacher educator programs should prepare prospective teachers to be teachers of English Language Learners" (Hallman & Meineke, 2016, p. 68). Data was collected in the form of a survey, which was a part of a larger study on the preparation of English teachers for secondary classrooms. The survey was sent to English teacher educators all over the country. 250 individuals completed the survey. In addition to the surveys, “six, hour-long focus groups were conducted with a subset of participants” (Hallman & Meineke, 2016, p. 72). Survey results indicated that there were some states, which had ELL specific programs for preservice teachers, and some states that did not. Some institutions offered ELL courses in their preservice programs, but enrollment in those courses was low. These courses were not mandatory, and students were choosing not to take them (Hallman & Meineke, 2016). Some states infused ELL strategies into

methods courses, but teacher candidates would not earn a separate certification from TESOL. There are some states that have programs with partnerships where professors from the language department of the university come to assist with ELL pedagogy lessons for preservice teachers (Hallman & Meineke, 2016).

Summary

Findings from these studies demonstrate the inconsistency in teacher preparation programs in terms of ELL knowledge/skill courses across the country. This inconsistency stems from the fact that not all states require teachers to have an ELL knowledge base for initial certification. This could either be frustrating for some teacher candidates or a relief. Either way, preservice teachers enter their certification programs with varying attitudes and beliefs about their teaching journey and their future students. This next section examines the specific preparation of content area teachers to teach ELL students. The core subjects each are a language of their own language, with specific words/phrases relevant to only that discipline. This poses a challenge not only for ELL students, but for their teachers as well. Content area teachers need to make sure that their students are understanding both subject content *and* the language specific to that subject. In the following studies the preparation of content area teachers to teach ELLs and how these teachers have experienced ELLs in the classroom will be explored.

Preparation of Content Area Teachers to Teach ELL Students

In 2013, Zhang and Stephens conducted a study that explored the effect that an intensive 1-year mentoring program had on preservice teacher preparation to teach ELL students. The study was based at a Southwestern state university in the United States. Six preservice teachers enrolled in a "jointly developed on-site program called the Student Teacher Enrichment Program (STEP-UP) (Zhang & Stephens, 2013, p. 103). "STEP-UP for student teachers consisted of five

workshops encompassing SLA theories and practice, students' behaviors in urban schools, lesson planning, teaching children from low-socioeconomic-status groups, and strategies for teaching ELLs" (Zhang & Stephens, 2013, p. 103). The participant sample consisted of six preservice teachers ranging from age 20-30. Three of the participants taught secondary math, two taught secondary English and one taught secondary social studies (Zhang & Stephens, 2013). Five of the six participants "had not learned any strategies focusing on teaching ELLs through university courses" (Zhang & Stephens, 2013, p. 104).

Data was collected using four surveys and three artifacts. Surveys evaluated ELL knowledge (Survey 1), SLA theories and teaching ELLs (Survey 2), teaching low socioeconomic- status groups in urban schools (Survey 3) and high-quality sheltered instruction (Survey 4) (Zhang and Stephens, 2013). Artifacts included two assignments (Artifacts 1 and 2) "that required the preservice teachers to analyze the linguistic and academic learning of an ELL. Completed lesson plans (Artifact 3) functioned as an additional artifact for investigating preservice teachers' developed strategies and their challenges for teaching ELLs" (Zhang & Stephens, 2013, p. 105).

Results indicated that participants "learned knowledge of language development, such as "dialect," "grammar, syntax, L1 sensing and L2 acquisition," "syllables," "language transfer," and the difficulties that the language learners often experience" (Zhang & Stephens, 2013, p. 106). Participants were able to understand the challenges student's face in terms of academic and linguistic capacity. However, "they were not confident in understanding the roles that linguistic and academic capacity and performance play in student learning. They were also unable to find instructional strategies for teaching ELLs" (Zhang & Stephens, 2013, p. 107). By the end of the program preservice teachers demonstrated a better understanding of teaching ELLs in lesson

planning and instructions. However, their understanding was broad and "they lacked specific strategies of planning activities. Second, they incorporated a broad spectrum of ELL strategies, but they did not tailor those strategies to those students of lower ELL levels" (Zhang & Stephens, 2013, p. 109). There was one participant who demonstrated his understanding of linguistic proficiency and strategies for students at varying levels (Zhang & Stephens, 2013).

This study shows the importance of preservice teacher exposure to strategies focusing on teaching ELLs in college/university coursework. In many ways the STEP-UP program was successful. However, this study also shows that developing skills to teach ELLs does not happen quickly. There were a number of participants who could not scaffold materials to meet ELL students of varying proficiency levels. This finding also speaks to the quality of preservice programs in terms of structure and faculty knowledge of skills to teach ELLs.

A study done by Ross (2014) sought to investigate the extent to which practicing mainstream math teachers feel they receive the preparation and support they need to effectively instruct ELL students, as well as how professional development contributes to these feelings. This quantitative study consisted of 181 educators (94% from PreK- 12 public schools) from a mid-Atlantic state in the USA. A four- part survey instrument based on the *Teacher Sense of Efficacy scale (TSES)* was used. Participants responded by indicating on a scale of 1-5, their ability to affect a situation; 1 meaning respondent can do nothing to influence students and 5 meaning the respondent can do a great deal to influence students (Ross, 2014). The survey was distributed via SurveyMonkey.com and analysis was done using Statistical Package for the Social Sciences (SPSS). Teachers reported lower efficacy scores with ELL students compared to non-ELL students (Ross, 2014). "69% of participants recalled being offered professional development one to five times. However, fewer than 45.6% participated in sessions" (Ross,

2014, pp. 94-95). This study adds to an existing body of literature about the ill preparedness of mainstream teachers teaching ELL students and professional development opportunities taken/not taken by those mainstream teachers. These findings indicate that more attention needs to be given to the preparative process of these educators.

In another study done on an urban campus in Mid-Atlantic USA, researchers studied the effects of an E-Pal project on preservice PK-12 teachers in a teacher certification program. Researchers were looking to answer: "What are the effects of an E-Pal project on preservice PK-12 content area teachers' reported: (1) Self-Efficacy in supporting mainstream classes? (2) Knowledge about the nature of instructional approaches for ELLs in mainstream classrooms?" (Mahalingappa et al., 2018, p. 131). 74 preservice content area teachers enrolled in a state mandated course to prepare them to teach ELLs participated in the study. In order to assess effectiveness of the E-Pal project, half participated in the E-Pal project and the other half completed an interview assignment; all other assignments were kept the same. Pen-pal partners were students from a local school. Letters regarding a book that both preservice and ELL students were reading were exchanged every third week over the 15-week semester. A self-efficacy questionnaire (SEQ) and instructional support questionnaire (SIQ) were distributed to each of the two groups of preservice teachers. Results showed that all preservice teachers' sense of self-efficacy improved regarding ELL instruction (Mahalingappa et al., 2018). Preservice teachers who participated in the E-Pal project reported a higher sense of self-efficacy in two of the variables in the survey. Results also showed that the E-Pal project had a significant impact on three of the seven instructional support items (Mahalingappa et al., 2018). Implications of this study speak to the benefits of secondary content preservice teachers participating in ELL

instruction courses as well as direct interactions of secondary content preservice teachers with ELL students.

Arizona is one of six states that mandate specific licensure/certification for preservice and in-service teachers. This study sought to determine readiness factors among in-service teachers and their reflection on preparation. Specific research questions include: "(a) What are the possible factors (both from preservice and in-service recollections) that impact teacher ELL readiness? (b) How does reported exposure to ELLs in preservice and in-service settings impact teachers' beliefs about their ELL self-competency? (c) What are practicing teachers' beliefs about reported self-competencies (readiness) in supporting ELLs?" (Okhremtchouk & Sahr, 2019, p. 128). A survey method was utilized. Data was analyzed based on a sample of 444 participants. Results showed that over half of the participants had exposure to ELLs in their preservice preparation program, while 95% had exposure to ELLs in their in-service setting (Okhremtchouk & Sahr, 2019). Teachers felt the most competent in cultural awareness and least competent in acquisition theories and language assessment. Teachers believed that the greatest factor that contributes to ELL readiness is knowledge of appropriate stein necessary to make ELL accommodations (Okhremtchouk & Sahr, 2019). Implications for this study speak to the need of ELL exposure for teachers and skills that are necessary for in-service teachers to feel competent to teach ELL students.

Data were collected from New York City (NYC) public school system in order to determine if certain characteristics and learning experiences of general educators are more effective at promoting math learning among ELLs compared to non-ELLs; and if there are, what are those characteristics and learning experiences (Master et al., 2016). 4,303 teachers of all grades and subjects (702 math) participated in the study. Results showed that very experienced

teachers (more than ten years) were differentially effective with their ELLs compared to their non-ELLs (Master et al., 2016). However, novice teachers, prior experience matters more than other teachers who fall in between novice and very experienced. Novice teachers will receive substantial training in ELL instruction, are able to lessen their achievement gap between ELL & non-ELL students by .09 standard deviations (Master et al., 2016). Results also showed that first-year teachers who partook in more than 9 hours of professional development were more effective in teaching ELLs during their first year compared to individuals who did not partake in the professional development (Master et al., 2016). Findings from this study suggest that over time, individuals can acquire skills to teach ELL students and that ELL specific training for preservice and novice teachers allows for better preparation to teach ELL students.

According to DelliCarpini and Alonso (2014), "science education is fundamentally a state-based right, meaning individual states are left to determine how best to provide these mandated services to ELLs" (p. 157). These authors explore CBI (content-based instruction). CBI looks to develop language within a specific content, instead of teaching the language in isolation (DelliCarpini & Alonso, 2014). Authors discuss the lack of coursework related to ELLs in mainstream classrooms during secondary teacher preparation. Their study looked to "report the effects of a program restructuring that implemented coursework specifically designed to prepare preservice and in-service mathematics, science and ESL teachers to work with ELLs in their content and ESL classrooms through collaboration between mainstream and STEM and ESL teachers" (DelliCarpini & Alonso, 2014, p. 155). To do this, a course designed specifically to have these groups of teachers work together was created. The course consisted of lectures, discussions and group activities where STEM educators and ESL teachers worked "together to develop content-driven CBI units for the secondary math and science classroom, and as a

companion, language-driven CBI units for the ESL classroom" (DelliCarpini & Alonso, 2014, p. 163).

There were a total of thirty-five participants in this study. Twenty-five of the participants were mainstream pre-service and in-service teachers. Eight were in-service ESL teachers. Data were collected throughout fall 2011 (seven participants), spring 2012 (eighteen participants) and fall 2012 (eight participants) (DelliCarpini & Alonso, 2014). Quantitative data was collected in the form of a pre- and post-course survey for participants. Qualitative data was obtained via writing samples, position papers, and observation journals (DelliCarpini & Alonso, 2014). Results showed that participants agreed with statements on post-test more than they did on the pretest. These results indicated changed beliefs of the participants and the development of a more positive attitude regarding ELL students (DelliCarpini & Alonso, 2014). Results from qualitative data showed that initially participants held a deficit view of ELLs. They felt achievement was the responsibility of the student and their family (DelliCarpini & Alonso, 2014). However, after their experiences working with ESL teachers and ELL students themselves, this deficit view changed. Participants understood how critical of a role language plays in the classroom and how beneficial it was to collaborate with ESL teachers (DelliCarpini & Alonso, 2014). Participants better understood the needs of ELL students. This study explored a course that took a similar approach to other courses previously discussed; the course had a lecture/discussion component and a field placement component. Something unique about this course was that ESL teachers were enrolled with mainstream teachers, giving the two a chance to collaborate and better understand the other's discipline.

Yoder et al. (2016) conducted a literature review of English Language Learners in the social studies classroom. Researchers chose to focus on qualitative studies as there has been an

increase in this particular type of research regarding instruction provided for ELLs (Yoder et al., 2016). Their meta-synthesis study began using the EBSCO database. Key terms used in the search were: "social studies, history teaching, history education, history instruction, civics, government, geography, economics" in combination with, "English language learners, ELLs, ESL, second language) or a related signifier (e.g., language minority, English as a second language, English learners, newcomer, immigrant)" (Yoder et al., 2016, p. 21). The search yielded a total of 35 articles; however, 15 of the 35 met the criteria researchers had set (Yoder et al., 2016, p. 22). Studies were then coded based on the three components of the Language-Content-Task (LCT) Framework: language, content, and task (Yoder et al., 2016, p. 23).

Fourteen of the studies reported on student performance in multiple language modalities. In one study, it was concluded that "targeted instruction based on knowledge of student language proficiency led to student production of academic language, including increased complex sentence structure and content-specific vocabulary" (Yoder et al., 2016, p. 27). The way content was delivered in the classrooms in the studies varied. The methods used included primary sources, bilingual writing assignments, films, textbooks, and comparing multiple texts (Yoder et al., 2016). Tasks in the classroom studies varied as well. More than half of the studies were coded to use multiple instructional formats (Yoder et al., 2016). The formats included class discussion, group work, oral presentations. There were three studies that did not directly state tasks (Yoder et al., 2016). The meta-synthesis provided three key implications: "First, teachers need to provide linguistically and culturally responsive instruction for ELLs in social studies classes. Second, social studies teachers need additional training in order to reach this goal. Third, social studies researchers need to conduct future research based on questions that arise from the corpus studies" (Yoder et al., 2016, p. 29). The implications of this study align with studies done

on other content areas; the teachers are not well prepared to teach ELLs and more research needs to be done.

Yoon et al. (2016) expanded on the concept of collaboration in their 2016 study. Their goal was to "design and measure the effects of the Culturally Inclusive Science Teaching (CIST) model on thirty teacher candidates who will teach science to culturally and linguistically diverse students" (Yoon et al., 2016, p. 322). Teacher candidates were elementary teachers. The location of the preservice program was a university in North Texas. This university partnered with a school in South Korea. Student participants traveled from South Korea to North Texas. The CIST model included six sessions: inquiring, questioning, interacting (on-line conferences with beginner English proficient students), interacting (face-to-face activities with middle level English proficient students), interacting (face-to-face activities with advanced English proficient students), and developing (Yoon et al., 2016). Data were collected using self-efficacy tests. The Science teaching Efficacy Beliefs Instrument Form B (STEBI-B) was used to measure self-efficacy for teaching. This form has two subscales: Personal Science Teaching Efficacy (PSTE) and Science Teaching Outcomes Expectancy (STOE) (Yoon et al., 2016). Data were also collected in the form of teacher reflections and lesson plans. A rubric was used to determine how culturally inclusive student lessons were.

Quantitative results indicated no significant improvement in participant's teaching efficacy or student outcome expectancy after instruction and practice using the CIST model. Researchers attribute this to students needing additional time to become comfortable with the CIST model (Yoon et al., 2016). However, qualitative results illustrated an increase in teacher candidate confidence to teach science to culturally and linguistically diverse students. Lesson plan "analysis indicated that most (88%) of teacher education candidates demonstrated skills in

creating multicultural/diversity lessons for students" (Yoon et al., 2016, p. 332). This study explores CIST as a prospective teaching strategy to better educate science teacher candidates about teaching ELL students. While authors acknowledge the quantitative results discouraging, the qualitative results show the strengths this type of program has at the university level. It further supports the benefits of specific methodologies being taught to teacher educators in preservice courses.

Lyon et al. (2018) acknowledged why it can be challenging for ELs to succeed in secondary science settings. “Compared to elementary settings, secondary school science exposes students to abstract and more cognitively demanding ideas (e.g. understanding *chemical processes* involved in photosynthesis)” (Lyon et al., 2018, p. 1290). As stated in a previous section, there are some content teachers who view themselves as just teachers of content, not language. To rectify both challenges, Lyon et al. (2018), suggested “not to eliminate the linguistic challenges involved or attempt to “teach” them as discrete language features, but rather to provide opportunities and support for students to develop the language and literacy central to science and engineering practices at the heart of the lesson” (p. 1290). “This study aimed to establish a ‘proof of concept,’ or the implementation of a specific ‘approach’ to verify that a concept or theory has practical potential” (Lyon et al., 2018, p. 1291). In other words, researchers wanted to understand the impact the restructuring of a specific program had on secondary science teachers. The restructured program’s foci were science teachings and creating conditions for language and literacy. The program was implemented in six university programs across Arizona, Texas and California.

To evaluate the proof of concept, researchers “designed measures to gauge the fidelity of implementation (FOI) of the intervention within and across sites. FOI is conceived here as how

well an intervention or innovation is being implemented *in comparison with the original program design.*" (Lyon et al., 2018, p.1291). The FOI for this study was the extent to which nine instructional practices focused on in the program were used in videotaped observation. A rubric based on the Secondary Science Teaching with English Language Literacy Acquisition (SSTELLA) framework was used to evaluate the videotaped observations (Lyon et al., 2018). Participants in this study were secondary preservice teachers in education programs from each of the states previously referenced. Science Methods Instructors (SMIs) from each state and a professional development director met face-to-face for three days to discuss the intervention and then met virtually monthly (Lyon et al., 2018). Data was collected over the course of two years. Overall, preservice teachers who participated in the intervention implemented practices at a higher level than those who were in the original program. They utilized more of the nine instructional strategies explicitly taught in the courses by the SMIs. "Student talk" and "Literacy" were the two practices that were used the most (Lyon et al., 2018).

Again, the goal of this restructured program was for students to gain knowledge about how to teach science *and* language/literacy. It was found that all SMIs provided preservice teachers with a rich science experience. However, the pedagogical development strand (language/literacy) varied among SMIs. During the observations, it was noted that students did implement practice, but lacked scientific authenticity and support for ELs (Lyon et al., 2018). Overall, researchers see the restructured secondary science program as a positive when compared to the original program.

Meier et al. (2020) investigated a gap in literature pertaining to secondary science preservice teachers' understanding of academic language and scaffolding academic language demands. Seven secondary science preservice teachers enrolled in a small thirteen-month post-

baccalaureate program at a research university in California were the participants in this study. Courses in this program included language and literacy, theories of student learning and reform-based science curriculum, instruction and assessments (Meier et al., 2020). “Five [preservice teachers] completed their second semester takeover in a class with one or more ELs; the other two taught classes that included at least three students who were reclassified as English proficient” (Meier et al., 2020, p. 230). Data were collected in the form of interviews, portfolios, video recordings, and class observations. All verbal data were transcribed and analyzed. Portfolios and other artifacts were analyzed, as well.

Results indicated that all seven participants “showed growth in their understanding of academic language over time” (Meier et al., 2020, p. 236). Participants were able to conceptualize all three levels (vocabulary, syntax & discourse) of language. Researchers deduced this when comparing participants’ first interview to their second and third interviews (Meier et al., 2020). Researchers found commonalities in the instructional support participants used to support student language learning. The most common supports used were sentence frames, word walls, partner collaboration, and drawing on home language (Meier et al., 2020). As students progressed in this program, these supports were used more frequently. This study acknowledges a particularly important part of ELL pedagogy for science teachers. Results are encouraging because they add yet another method to which preservice science teachers can be taught to “acknowledge and value their role in creating science classrooms that help all students, including ELs” (Meier et al., 2020, p. 246).

Rutt and Mumba (2020) highlight the importance of preparing preservice teachers with the knowledge and skills that they need to teach ELLs as the classrooms in the U.S. become more linguistically diverse. They express how little research has been done in terms of secondary

preservice teacher preparation. The purpose of their study was to help close this gap by determining how "secondary science preservice teachers instructional planning for language – and literacy-integrated science instruction changed over the course of participation in two language – and literacy-integrated methods courses" (Rutt & Mumba, 2020, p. 842). This study took place at a research university in the mid-Atlantic of the United States. Eleven secondary science preservice teachers took the courses over a one-year period. Data were collected in forms of open-ended survey questions, interviews, participant-created lesson plans, reflections, and instructional materials. The Teaching English Learners Language – and Literacy-Integrated Science (TELLIS) framework was used to analyze data. Researchers sought the frequency that this framework was integrated into participant practices and planning (Rutt & Mumba, 2020).

"Results indicated positive changes in PST's (preservice teachers) implementation of the TELLIS practices in their instructional planning after participation in the science methods courses" (Rutt & Mumba, 2020, p. 855). These results are supported by the increased integration of language – and literacy-integrated practices into instructional materials and practices throughout the courses. Participants included more opportunities for students to use language for science purposes, as well as smaller group and partner discourse (Rutt & Mumba, 2020). Results of this study show the benefits of targeted approaches when educating preservice teachers. The targets for this study were language and literacy integration in science classes. This skill was taught explicitly in courses and was increasingly used in preservice teacher planning and instruction over the duration of the year. This explicit teaching is a notion identified earlier in the Lyon et al. (2018) study.

To close this section, one final article will be reviewed. Mills et al. (2020) conducted a literature search in order to answer the following question: "How are prospective teachers

prepared to teach ELLs?" (p. 34). This question was developed based on the expanding, yet limited research conducted on the topic. Empirical, peer-reviewed research on the preparation of prospective mainstream teachers to teach ELLs in the United States was sought. The period of focus was 2000-2018, "a period during which mainstream classrooms became more linguistically diverse" (Mills et al., 2020, p. 36). Academic Search Premier, Academic Search Complete, Education Resources Information Center, and PsychINFO were all used to find studies. Different combinations of key words – *English language learners, ELLs, English Learners, ELs, students of limited English proficient, LEP students, preservice/prospective teachers, teacher candidates, mainstream/general education/content area teachers, preservice teacher education teacher education, teacher preparation* were used (Mills et al., 2020). Initially 189 studies were generated. Articles addressing inservice teachers, and specialist teachers (bilingual and ESL) were excluded. Researchers narrowed their findings to twenty-nine studies (Mills et al., 2020).

In order to analyze their data, each article was summarized, and then researchers identified trends in article summaries. Nine studies showed campuses teaching preservice teachers with innovative pedagogies/strategies, fourteen studies focused on field experience of preservice teachers with schools/communities and six studies explored immersion experiences (teaching in international settings) of teacher candidates. Preservice teachers who were enrolled in courses that taught innovative pedagogies/strategies felt better prepared/confident to teach ELL students, as did the preservice teachers who completed field experiences and immersion experiences (Mills et al., 2020). From their analysis, Mills et al. (2020) identified several gaps in the research: "1. Preparing preservice teachers for linguistically diverse classrooms. More research is needed on pedagogical interventions. 2. Methodical limitations of studies reviewed and need for studies that give teacher educators a clear understanding of how mainstream

teachers should be taught to teach ELLs (i.e. teacher candidate beliefs). 3. Investigations that extend beyond a single course or field experience and take a program-level approach to gain a more comprehensive understanding of how preservice teachers learn to teach ELLs" (pp. 51-52). Much of the research used in this literature review addresses the first two gaps that Mills et al. (2020) identified.

Summary

The studies above speak to the fact that no matter the discipline, content teachers do not feel adequately prepared or effective in teaching ELL students. When given explicit instruction or the opportunity to interact with/teach ELL students, content teachers feel more confident and effective. The next section explores the various instruments that have been developed to measure teacher self-efficacy and cultural responsiveness toward ELL students.

Preparation of Special Education Teachers to Teach ELL Students

As the number of ELL students in schools has increased over the years, there has been a growing "tension" between ELL services and special education services. While both sets of services are important, studies have shown that when identifying students of these groups, they are either disabled/nondisabled or English proficient/non proficient (Adams & Hord, 2023). It is possible to have overlap, meaning a student can be identified as needing an IEP as well as being an ELL. However, preservice programs are putting their preservice teachers in *a "specialization trap"* - "defining their work in terms of boundaries corresponding to their own specialization - what they can or cannot do and which student why can or cannot support" (Adams & Hord, 2023, p. 2). There is a call for an increased collaboration between special education teachers and ELL teachers, as well as an increased exposure of preservice special education to teachers to ELL students. The literature regarding special education preservice teachers and ELL training is

quite similar to the literature regarding preservice content area teacher training and ELLs. The literature reports that “while a curriculum pertaining to the education of ELLs with disabilities was included, this curriculum was “scattered and disjointed” (Adams & Hord, 2023, p. 2). The following section in this literature review addresses the preparation of preservice special education to teach ELLs.

A study done in the Midwestern United States sought to identify the experiences of special education preservice teachers whose field experience consisted of working with ELL students and an ELL teacher at a tutoring program at a local high school (Adams & Hord, 2023). Four, fourth-year undergraduate students worked with ELL students in the tutoring program, as well as their teacher, Clare (pseudonym). Students completed a one-time electronic survey consisting of three “yes or no” questions and seven open ended questions (Adams & Hord, 2023). An interview with Clare lasting thirty minutes was also used as data. Researchers identified central themes, which “included adapting to student needs, the universality of pedagogical strategies, communication barriers and mutually beneficial outcomes” (Adams & Hord, 2023, p. 729). Half of the participants did not have prior experience with ELL students. All participants referred to their experience as a way that allowed them to “adapt to the students’ needs” and to “take the strategies they had learned previously, such as verbal prompting and offloading working memory, and retool them” (Adams & Hord, 2023, p. 730). Clare felt this experience would make the students more marketable because “in addition to meaning those strategies that work well for both ELs and special education students, they’re also learning some strategies that might be particular to kids who are ELs” (Adams & Hord, 2023, p. 730). She enjoyed having the preservice teachers there to help. She noted tension between special education and ELL services indicating that her program is “often isolated” (Adams & Hord,

2023, p. 733). All students felt that the collaboration with Clare was beneficial for everyone, including the students. This study speaks to the benefits of collaboration among special education and ELL teachers, as well as how beneficial it is for special education teachers to work with ELL students during preservice training.

As previously mentioned, it is possible for the ELL and special education services to overlap, meaning a student can be identified as an ELL student with special needs. These students require services for their learning disability, as well as their lack of English proficiency. Research has shown that SPED (special education) teacher preparation programs are not including content in their purses to help teacher candidates teach ELL students with disabilities. If the content is included, it is an afterthought (Miranda et al., 2023). A study done at a university in a western state examined the extent to which its' teacher preparation program was preparing teacher candidates to effectively teach ELLs with disabilities. This study evaluated a special education teacher preparation program using a utilization-focused evaluation (Patton, 2008). "Utilization-focused program evaluation is evaluation done for and with specific intended primary users for specific, intended uses" (Patton, 2008, p. 39). The evaluation committee was composed of five key faculty members, and the first author of the study served as the evaluator. Data were collected via document review, faculty questionnaire, teacher candidate survey and faculty focus group (Miranda et al., 2023). The document review consisted of course syllabi, textbooks, curriculum maps and instructional materials. The faculty questionnaire consisted of five questions and was administered to determine if there was any integration of teaching ELLs in their courses. The teacher candidate survey was distributed to determine level of competency to teach ELLs with disabilities, as well as candidates' perception of preparation to teach ELLs with disabilities. Out of 190 teacher candidates, 46 (24%) responded to the survey. The faculty

focus group discussed the document review, teacher candidate survey and the faculty questionnaire (Miranda et al., 2023). Document analysis revealed that "the curriculum relating to teaching ELLs was not incorporated consistently between programs, with programs ranging from zero to six designated courses. ALL ELL content was embedded within other courses, with no stand-alone SPED ELL courses offered" (Miranda et al., 2023, p. 340). Focus group data/faculty questionnaire results revealed that faculty differing viewpoints in terms of including ELL content in SPED teacher preparation courses. Some felt that there was a great need to include ELL content in courses saying:

> "With the inclusion focus, our teachers' need to see the big picture and know how to teach all students" (Miranda et al., 2023, p. 341).

Others had more negative opinions expressing:

> "I do not see ELL as a focus for the special education department simply because our focus is those who struggle with intellectual and physical issues" (Miranda et al., 2023, p. 341).

Teacher candidate results revealed the strong need to change or adapt instruction for ELLs (Miranda et al., 2023). In the open-ended portion of the survey many candidates expressed fear in having to teach ELLs except for those who had field experience with ELLs. They felt that those experiences were most helpful in preparing them to teach ELLs (Miranda et al., 2023). This study further exemplifies how different teacher preparation programs are in the United States, as well as the discontinuity of preparation within the programs themselves. This study also offers a more specialized evaluative approach for preparation programs, utilization-focused programs (Patton, 2008).

In a 2017, 7-month ethnographic case study, Sara Kangas mentions Crenshaw's (1989) concept of *intersectionality* - "a term for how individuals who represent multiple minority social categories are affected—more specifically marginalized—by the intersection of these very social

categories" (Kangas, 2017, p. 6). ELL students with disabilities are at the intersection representing two minority groups: they are students with disabilities and students who are acquiring English as an additional language (Kangas, 2017). The purpose of the author's study was to examine the practices of a bilingual school (located in northeastern United States) for ELLs with special needs, as well as how opportunities for these students were shaped based on the educational practices of the school (Kangas, 2017). Out of 550 students, 143 (26%) were identified as ELLs, 65 students (18%) had learning disabilities, and 15 students were identified as having a disability and an English language learning need (Kangas, 2017). The school followed a TWI (two-way immersion) 50/50 model. Of the 600 minutes in the school day, half of the time consisted of instruction in English and the other half consisted of instruction in Spanish (Kangas, 2017). The school incorporated a push-in ESL model and an inclusion model for students with disabilities. For this study, five focal teachers and eight focal students (all ELLs with disabilities) were utilized. The researcher made a total of 46 visits to the school and collected data in the form of classroom observation, personnel interviews, meetings and conversation with personnel and school artifacts (Kangas, 2017). Data was analyzed in two cycles. Three themes emerged: "limited resources, educators' expectations of their students and beliefs about educational law influenced the educational opportunities of ELLs with special needs" (Kangas, 2017, p. 15). Limited resources included mainly specialists (i.e. the special education teachers and the ELL teachers). When students were taught in Spanish, there were no special educators present in the room. Faculty addressed this by explaining that "Spanish language acquisition is not mandated in IEPs" (Kangas, 2017, p. 19). In terms of educators' expectations, the author noticed that many staff members perceived their students as limited in both the Spanish language and the English language and acknowledged that the testing practices

contributed to that perception. ELLs with disabilities did not receive consistent instruction in their first language and very little, if any, instruction in English (Kangas, 2017). Educators had varying beliefs when it came to special education and ELLs. “Special education was revered to as legal - albeit only as it applied to English- while bilingual education/ESL was deemed optional” (Kangas, 2017, p. 22). This study demonstrates how a school dedicated to a particular type of instruction can have its biases and limitations, which in turn affect the students. The author expresses how to prepare schools to serve ELLs with special needs. Kangas (2017) stated, “to best prepare schools to serve ELLs with special needs, teacher education programs need to dedicate more attention to developing in-service and preservice teachers’ interdisciplinary knowledge about these students and their educational needs and rights” (p.1).

Pappamihiel et al. (2010) shared how unfortunate it is that “many special educators who have ELLs in their classes do not feel fully trained to teach reading, and the number of students who speak a first language other than English who are being served in special education is growing” (p. 496). Researchers completed a case study that was done at Florida State University’s Education of Students with Exceptionalities program. The program is a combined undergraduate-graduate program that students enter as a junior and graduate with bachelor’s and master’s degrees (Pappamihiel et al., 2010). Florida is a state with a high number of ELLs. As of 1990, practicing teachers in the state needed to earn 15 credit hours of training in ESL instruction. This regulation applied to the preservice programs as well, including special educators (Pappamihiel et al., 2010). Special Education and ESL faculty at the university collaborated and decided to create an infused special education/ESL training as opposed to having the ESL courses be separate from the special education courses. The three domains that were covered throughout the courses were: ESL methodology, ESL curriculum and cross-

cultural understanding (Pappamihiel et al., 2010). Service learning (field experience) was an integral part of the program structure. The university sent out a survey to the 25 students who graduated from the new program to determine how prepared students felt to teach ELLs; 15 responded. “On a scale of 1 (strongly disagree) to 5 (strongly agree), graduates' mean responses ranged from 3.78 to 4.72, indicating they felt well prepared to teach; graduates strongly agreed that they were prepared to ‘be a change agent teacher who makes a difference for children’ (M = 4.72) and ‘individualize instruction for students with ESL’ (M = 4.06)” (Pappamihiel et al., 2010, p. 501). This study is another example of how universities are addressing the growing number of ELL students in their corresponding states, as well as how much preservice teachers benefit from field experience with ELLs. This study adds to the growing body of literature to address the ill-preparedness of preservice teachers to teach ELL students.

Summary

This section showed that it is not just preservice content area teachers who are ill-prepared to teach ELL students, special education preservice teachers are suffering as well. This issue stems from program structure, which is influenced by university faculty/leadership. While special education students and ELL students are two separate groups, there can be overlap. This overlap needs to be addressed and the students need to get the education to which they are entitled. Just like preservice content area teachers, preservice special education teachers express how beneficial field experience with ELLs is to their practice and their confidence should they have to teach ELLs in the future, which leads back to the structure and course offering in their preservice program.

Self-Efficacy and Cultural Responsiveness Instruments

In their paper, Tschannen-Moran and Woolfolk Hoy (2001) explained how they worked with eight graduate students from The Ohio State University, who were taking a seminar on *self-efficacy in teaching and learning*, to create a new measure of efficacy. The group decided to use the expanded scale format advocated by Bandura (Tschannen-Moran & Woolfolk Hoy, 2001). The team generated 52 items, 23 being from Bandura's 30 item scale. "A 9-point scale was used for each item with anchors are 1-nothing, 3-very little, 5-some influence, 7-quite a bit and 9- a great deal" (Tschannen-Moran & Woolfolk Hoy, 2001, p. 796). The instrument, "*Ohio State teacher efficacy scale (OSTES)*, was examined in three separate studies" (Tschannen-Moran & Woolfolk Hoy, 2001, p. 796).

The first study consisted of both preservice and in-service teachers at The Ohio State University (*n*=224). In addition to responding to all the items, participants also had to "rate the importance of each item for effective teaching on a 4-point scale (*not at all, somewhat, important or critical)"* (Tschannen-Moran & Woolfolk Hoy, 2001, p. 797). At the end of this study, 32 of the original 52 items were chosen to be further tested. In the second study, preservice and in-service teachers (*n*=217) from three universities (Ohio State, William and Mary, and Southern Mississippi) served as participants. Three factors emerged from factor analysis. Researchers then identified additional items to eliminate from the scale. By the end of this study, an 18-item scale with three factors: *efficacy for student engagement* (8 items, .82 reliability), *efficacy for instructional strategies* (7 items, .81 reliability) and *efficacy for classroom management* (3 items, .72 reliability), emerged (Tschannen-Moran & Woolfolk Hoy, 2001). The reliability for all 18 items was .95.

The third study further tested the OSTES. First researchers surveyed 183 preservice teachers. Factors analysis revealed that the classroom management factor was weak, but researchers felt it was important, so they wrote more items for that factor (Tschannen-Moran & Woolfolk Hoy, 2001). After another field test, the instrument contained 36 items. The third study consisted of 410 participants (in-service and preservice teachers) from Ohio State, William and Mary, and Cincinnati), in addition to teacher volunteers from elementary, middle and high school. Factor analysis results mirrored those of the second study in terms of the three factors- *efficacy for student engagement* (12 items, .87 reliability), *efficacy for instructional strategies* (15 items, .91 reliability) and *efficacy for classroom management* (9 items, .90 reliability), emerged (Tschannen-Moran & Woolfolk Hoy, 2001). The reliability of each factor increased as well. From this data a short form (12 items) and a long form (24 items) were created. OSTES generated an overall reliability (p <0.001) of 0.94 (Tschannen-Moran & Woolfolk Hoy, 2001).

The creation of this instrument (short and long forms) is a useful tool in the study of teacher self-efficacy. "It has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching (Tschannen-Moran & Woolfolk Hoy, 2001, pp. 801-802). This tool can be utilized in higher education as well as in public/private schools. It is important for the administration to know how effective their teachers feel to support them in the best way possible.

Siwatu (2006) developed scales that measured *Culturally Responsive Teaching Self-Efficacy (CRTSE)* and *Culturally Responsive Teaching Outcome Expectancy (CRTOE)*. This researcher's instruments were based on Bandura's (1977) Self-Efficacy theory, as well as Siwatu's (2006a) *Culturally Responsive teaching Competencies.* Siwatu's (2006a) conducted an in-depth literature review to identify these competencies. The primary key words used in the literary search were

culturally responsive teaching, culturally congruent instruction, culturally appropriate instruction, culturally compatible instruction, and culturally relevant teaching. Secondary key words used in the search included but not limited to the following: *urban education, black education, social psychology and education, urban schooling, urban teachers, multicultural education, and anthropology and education.* These keywords often identified the work of scholars in a variety of fields with interests in the schooling of today's culturally and linguistically diverse school population" (Siwatu, 2006, p. 1089). These competencies were used to develop the CRTSE and CRTOE. Siwatu chose to use 0-100 point scales as opposed to Likert based on Bandura (1997) and Pajaras et al. (2001). According to both, "the 0–100 response format was psychometrically stronger compared to the Likert scale" (Siwatu, 2006, p. 1090).

The population for this study consisted of 275 preservice teachers enrolled in two different programs in the Midwest. Each participant completed the CRTSE (40 items) and the CRTOE (26 items). In terms of the CRTSE, "preservice teachers' culturally responsive teaching self-efficacy was highest for ability to: 'help students feel like important members of the classroom' (*M*=92.97, SD=8.91) and 'develop a personal relationship with my students' (*M*=92.76, SD=8.42). Item-specific means were lowest among the preservice teachers for ability to: 'greet English Language Learners with a phrase in their native language' (*M*=71.01, SD=23.78) and 'praise English Language Learners for their accomplishments using a phrase in their native language' (*M*=71.48, SD=23.56)" (Siwatu, 2006, p. 1092). In terms of the CRTOE, "preservice teachers' culturally responsive teaching outcome expectations was highest for the possibility that 'a positive teacher-student relationship can be established by building a sense of trust in my students' (*M*=93.49, SD=8.62). Item-specific means were lowest among the preservice teachers for the possibility that 'encouraging students to use their native language will help to maintain

students' cultural identity' (*M*=74.62, SD=19.44)" (Siwatu, 2006, p. 1092). In the factor analysis of the CRTSE, "40 items yielded seven factors with eigenvalues greater than one and 'internal reliability for the 40-item measure was .96, as estimated by Cronbach's alpha'" (Siwatu, 2006, p. 1092). In factor analysis for the CRTOE, "26 items yielded four factors with eigenvalues greater than one" and "internal reliability for the 26-item scale was .95, as estimated by Cronbach's alpha" (Siwatu, 2006, p. 1092). The instruments allowed the researcher to determine which cultural competencies preservice teachers feel most and least effective in, as well as how culturally responsive preservice teachers feel toward ELL students. The development and use of these scales can be utilized by higher education facilities to help assess not only preservice teachers in the program, but the program themselves.

Fu and Wang (2021) created an instrument that added to just a few that measure mainstream preservice teacher' efficacy in teaching ELLs; the name of the instrument, ELL Education Self-Efficacy Scale. Researchers utilized specific teaching standards for teaching ELL students when brainstorming about the creation of the instrument. These standards include: "pedagogical-content knowledge to make content accessible to ELLs, linguistic knowledge to facilitate language acquisition, and sociocultural knowledge to promote ELL cultural identity" (Fu & Wang, 2021, p. 157). The scale consisted of 52 items. In order to develop the instrument, researchers used Bandura's (1997) self-efficacy theory to help develop what the instrument would measure. Next, they "identified the scale domains and created an item pool based on a careful examination of the relevant literature" (Fu & Wang, 2021, p. 160). Researchers utilized the 100-point scale format and used Bandura's (2006) recommendations for wording their items (Fu & Wang, 2021). The scale was reviewed and improved upon by experts, which led to the completion of a pilot study (Fu & Wang, 2021). Finally, researchers "recruited 278 mainstream

pre-service teachers in six American universities to complete the revised version of the ELL Education Self-Efficacy Scale" (Fu & Wang, 2021, p. 159).

SPSS software was used to analyze factor structure. Cronbach's alpha of the items was used to examine internal consistency. "High Cronbach's alpha within all three factors indicated excellent internal reliability of the scale" (Fu & Wang, 2021, p. 162). The validity of the scale lay in the intense development of the instrument. Further statistical analysis led to the deletion of 6 items, making the scale 46-items long. The three factors revealed from the analysis were Pedagogical Content Self-Efficacy, Linguistic Self-Efficacy, and Sociocultural Self-Efficacy (Fu and Wang, 2021). As previously stated, all three factors had high Cronbach's alpha: Pedagogical Content Self-Efficacy = .96, Linguistic Self-Efficacy = .95, and Sociocultural Self-Efficacy= .96 (Fu & Wang, 2021). These factors add to the developing literature on self-efficacy, based on Bandura's (1995) theory, being utilized in education to help preservice teachers, practicing teachers and students.

Summary

These studies add to the growing body of literature about content area preservice teacher sense of self-efficacy. The instruments developed are based on theory, standards and a rigorous creation process. Each of the instruments developed can aid in the enhancement of preparation of preservice teachers to teach ELLs.

Literature Review Summary

The findings from the research add to a body of work that can be very useful to leaders at the university level. History has shown that education state law can change at any time. It is very possible that those states that do not require any type of ELL training for preservice teachers now, may require it in the future. Higher education institutions will have to redesign courses or

restructure programs just as the universities in the studies discussed did. Leaders could use this information to get a head start and incorporate ELL theory/strategy courses into their preservice programs now. They could use what is known about program models (endorsement and infusion) and implement their very own endorsed or infused program. Knowledge about professional development opportunities for teacher educators could give teacher educators the training they need so that when the time comes to teach ELL methods/theory, they are ready.

If the teacher educators are not well versed in ELL strategies, the preservice teachers will not receive the preparation needed for when they enter classrooms with ELL students. Higher education leaders can also take note how powerful field experience with ELL students was for preservice teachers. Incorporating some type of classroom experience where preservice teachers work closely with ELL students is something to be considered by universities. The specific ELL strategies taught or not taught to preservice content area teachers serve as exemplar strategies to universities. Universities may take note of those strategies or lack thereof and include some in their own courses. Finally, being aware of personal perceptions and practicing self-reflection are two extremely important elements that universities can look to incorporate into their preservice programs, whether exclusively in ELL courses, or in general methods courses. The research has shown how large of a role attitudes, beliefs and perceptions play in preservice teachers discovering who they are as educators and how they view their prospective students. Teacher candidates need to be able to understand themselves and reflect. These practices are incredibly powerful aspects of teacher training. The instruments developed that measure self-efficacy and cultural responsiveness can help with that.

Gap In Literature This Study Will Address

There is a lack of research done extending beyond preservice teacher preparation programs (i.e. in the classroom) as indicated by Mills et al. (2020). There is also very little research about preservice teacher preparation generally in the state of New York. The following study aims to close those gaps. The United States will more than likely continue to see increases in ELL students in K-12 classrooms in the future. These students deserve to be educated in a way so that they can understand both language and content. Equivalently, content area teacher candidates deserve to be educated in a way so that they themselves understand how to properly deliver language and content to ELL students.

Chapter III: Methodology

Research Questions

RQ1. Does preservice content teachers' sense of self-efficacy align to their perceived quality of their university program relative to ELL student instruction?

RQ2. In which of the following areas, instructional strategies, student engagement, or classroom management, do preservice content area teachers feel most and least effective in ELL student instruction?

RQ3. Is the preservice content area teacher's current standing- third-year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate, or first-year teacher- related to their responses regarding their effectiveness in ELL student instruction?

Research Approach

The purpose of this quantitative study was to determine secondary content area preservice and new teachers' sense of self-efficacy in ELL student instruction. The research questions specifically examined how preservice content teachers' sense of self-efficacy aligned to their perceived quality of their university program relative to ELL student instruction, how effective preservice content area teachers felt in the areas of instructional strategies, student engagement and classroom management toward ELL students, and if preservice content area teacher's current standing (third year undergraduate, fourth year undergraduate, first year graduate, second year graduate or first-year teacher) was linked to their survey responses regarding their effectiveness ELL student instruction. A survey design was utilized in order to make claims about the population that will be studied (Creswell & Creswell, 2018).

The Teacher Sense of Self-Efficacy Scale (TSES) was the instrument used to gather data. While there are other instruments that were created to measure self-efficacy toward ELL students (Fu and Wang, 2021), the TSES was the instrument of choice. It was used because the researcher felt that it would measure the constructs of interest in an appropriate manner and through its

rigorous creation process and continual use in educational research, the TSES has become a well-established instrument. The length of the instrument (12 items) was also a key feature. With the demographic questions and program evaluation questions, the total length of the survey for this study consisted of significantly fewer items than Fu and Wang's 2021 instrument (52 items long). Additionally, the creators of the instrument have a leadership focus in their research. The article written by Tschannen-Moran and Woolfolk Hoy in 2001, speaks to the validity and reliability of this survey instrument. In their article, researchers describe in detail the three studies done to create the finalized version of the survey instrument. The first two studies allowed the researchers to delete items that took away from the integrity of the scale by asking participants to not only respond to the items, but to also rate how important they felt the items were for effective teaching (Tschannen-Moran & Woolfolk Hoy, 2001). By the end of the third study, researchers had a short form (12 items) and a long form (24 items) of the TSES. Three factors, each with high reliability, emerged through statistical analysis: *efficacy for student engagement* (.81 reliability), *efficacy for instructional strategies* (.86 reliability) and *efficacy for classroom management* (.86 reliability). The instrument itself generated an overall reliability ($p < 0.001$) of 0.90 (Tschannen-Moran & Woolfolk Hoy, 2001). The TSES has been used by other researchers in education (Karen Ross in 2014). As previously stated, through its rigorous creation process and continual use in educational research, the TSES has become a well-established instrument.

Participants and Sampling

The participant population for this study consisted of students who are currently enrolled in a teaching program for a secondary content specialty (math, science, English, social studies) or secondary special education. Currently enrolled students identified as one of the following: third-

year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate or first-year teacher. First-year teachers certified in one of the four content areas previously mentioned, were also utilized to ensure a large enough *n* (80); the rationale being that these individuals were given the opportunity to reflect on the quality of their preservice program and see if it did in fact prepare them for ELL students in the classroom. Additionally, individuals should be able to remember the experiences in their preservice program more easily than teachers who have been in the field for two or more years. The first-year teachers attended the same preservice teaching program in a private university in the state of New York as the currently enrolled students. The university that the preservice content area teachers are attending/attended served as the setting for this study.

Procedure

The researcher used a survey instrument (Appendix B) developed by Tschannen-Moran and Woolfolk Hoy (2001) and adopted by Ross (2014) to measure teachers' self-efficacy in ELL instruction in the areas of student engagement, instructional strategies, and classroom management. Permission was obtained from Tschannen-Moran and Woolfolk Hoy to use and adapt the survey instrument so that the questions are reflective of ELL students for this current study, via email. The email explained the purpose of the study, as well as how the researcher planned to adapt survey questions so that they are aligned to ELLs just as Ross (2014) did in their study. Prior to completing the TSES, participants completed two blocks of questions created by the researcher. In the first block, the researcher asked demographic questions: an age range, their current standing (third-year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate or first-year teacher), content area they will be certified in (math, science, English, social studies), if English is their first language and if they have taken a class

where they were taught how to teach ELL students. The second block of questions will be more evaluative, referring to the preservice program participants are/were enrolled in. Participants indicated how much they agree or disagree with statements regarding prior knowledge about teaching ELL students from outside their university program, if their preservice program has offered an adequate number of courses to prepare them to teach ELL students in the classroom, if content of that course has increased their knowledge of ELL instruction, and if they experienced a change in attitude or perceptions toward ELLs after taking a course about ELL instructional skills. Upon completion of those two question blocks, participants responded to a series of statements from the "*The Teachers' Sense of Efficacy Scale"* (TSES).

The survey instrument was first created using the Qualtrics Online Survey System. Once the survey was created, the researcher utilized a small sample of participants (practicing teachers from the four content areas) to determine the approximate amount of time it takes to complete the survey. In order to determine how to best distribute the survey to participants, the researcher and chairperson contacted the school of education's administration at the university. Administration offered to email the survey to program directors as well as put me in touch with professors who teach many of the secondary education students. The researcher composed an email with the survey link to the program directors and an email to the students to complete the survey. The survey was distributed to a sample population by email. The participant population for this study consisted of students who are currently enrolled in a teaching program for a secondary content specialty (math, science, English, social studies), secondary special education, and first-year teachers certified in one of the four content areas or secondary special education, all completing their preservice program at the same private university in the state of New York. Participants willing to complete the survey voluntarily clicked on the Qualtrics Online Survey

link and attested to their willingness to participate by clicking the “I consent” box in Question 1. The statement read:

> By clicking the "I consent" in the box below, you are indicating your consent to voluntarily participate in the entire survey, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

Participants responded to demographic and scale items in the survey. The survey was active from October 5, 2023 to November 22, 2023. Emails were sent to a total of 96 individuals with a response rate of 85%. Reminder emails were sent out weekly. Participants were thanked for their participation at the completion of the survey. Subsequent data analysis was done on the collected survey responses.

Measures

The students who were previously enrolled or who are currently enrolled in a teaching program for a secondary content specialty or secondary special education in this study were invited to respond to demographic questions, program evaluations statements, as well as the statements from the Teacher Sense of Self-Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) (see Appendices A & B). The demographic questions asked how participant's age range, their current standing (third year undergraduate, fourth year undergraduate, first year graduate, second year graduate or first-year teacher), and content area they will be certified in. The evaluation statements participants responded to examined if participants have any prior knowledge about teaching ELL students from outside their university program, if they have taken a class where they were taught how to teach ELL students, how

helpful they felt the content of that course was in preparing them to teach ELL students, and if they experienced a change in attitude or perceptions toward ELLs after taking a course about ELL instructional skills. The demographic data was used for descriptive purposes and as grouping variables in order to identify any defining factors that may contribute to participant sense of self-efficacy in the areas of student engagement, instructional materials, and classroom management. The evaluative statements helped the researcher to determine how effective preservice teachers feel their program is in preparing them for ELL instruction. The TSES explores three specific constructs pertaining to a teacher's sense of self-efficacy. The short form of the TSES consists of 12 questions and "assesses issues and situations that teachers find difficult in their professional activities" (Ross, 2014, p. 89). The three different factors that the TSES measures are: instructional strategies, student engagement and classroom management. The researcher will adapt the TSES to focus on ELLs. The word "ELLs" was placed before the word "students" in questions 2,3,4,5,7,8, and 10. In questions 1,6,9,11 & 12 the words, "ELL students" were placed in the appropriate places to make the questions particular to that group of students (Appendix A). Participants were told in the prompt before this section of the survey to answer all questions in this portion regarding ELL students.

In this survey, participants indicated "the degree to which each question corresponded to their ability to affect a given situation. Scores for "self-efficacy could range from ''1'' point (respondent can do nothing to influence students) to ''9'' points (respondent can do a great deal to influence students)" (Ross, 2014, p. 89). Each scale (instructional strategies, student engagement and classroom management) consists of four questions. The independent variables for this study were those established as the demographic questions. The dependent variable was self-efficacy in terms of the mean score in each of the three TSES categories. 108 (36 points per

category) is the maximum number of possible score points on the TSES. “The higher the number of accumulated points, the more effective and successful the survey participants considered themselves in each of three categories: (1) self-efficacy for student engagement, which refers to an educator’s ability to connect with students, hold their interest, and motivate them to learn; (2) self-efficacy for classroom management, which relates to an educator’s ability to create a safe, productive learning environment and to control students whose behavior may undermine their academic progress or that of other students; and (3) self-efficacy for instructional practices, which is linked to an educator’s ability to convey content skills and knowledge to students” (Ross, 2014, p. 89).

Data Analysis

The researcher used the *Statistical Package for the Social Sciences* (SPSS) platform to run descriptive statistics, tests for reliability, principles components analysis, correlations, independent sample t-tests, and ANOVA. A test for reliability was done to confirm that of Tschannen-Moran and Woolfolk Hoy’s (2001) instrument. A confirmatory reliability and principles components analysis tests were done to see if the instrument used was reliable and if it measured the same number of constructs in Tschannen-Moran and Woolfolk Hoy’s (2001) instrument. Descriptive statistics (i.e. means) allowed the researcher to determine in which of the three constructs (student engagement, classroom management and instructional strategies) survey participants felt most and least effective. The researcher ran total scores of each of the three factors in SPSS and used those to carry out correlations and independent sample t-tests between the independent and dependent variables. Correlations were done to determine relationships between nominal variables (demographic questions) and constructs (Creswell & Creswell, 2018). Independent samples t–tests were done to confirm significant and not significant relationships

between nominal variables and constructs (Creswell & Creswell, 2018). ANOVAs were done to determine if a statistical difference between the means of three or more independent groups (third year undergraduate, fourth year undergraduate, first year graduate, second year graduate or first-year teacher) exists.

Validity & Reliability

The reliability of the instrument that was used was tested by Tschannen-Moran and Woolfolk Hoy (2001) via three research studies. A scree test suggested three factors could be extracted: *efficacy for instructional strategies, efficacy for classroom management and efficacy for student engagement.* The subscale reliability (p <0.001) for each respective factor was: .86 for instruction strategies, .86 for classroom management and .81 for student engagement (Tschannen-Moran & Woolfolk Hoy, 2001). TSES generated an overall reliability (p <0.001) of 0.90 (Tschannen-Moran & Woolfolk Hoy, 2001). Reliability was confirmed during confirmatory factor analysis and Cronbach alpha calculation during a pilot study. The validity of this instrument was established through its repeated use. Ross (2014) utilized TSES in her study as well as referenced the instruments' use in Armor et al's 1976 study and Gibson and Dembo's 1984 study. The use of the adapted TSES in this study will serve as validation of the instrument to measure sense of self-efficacy toward ELL instruction.

Ethics

This study was conducted utilizing secondary preservice content area and special education teachers who are currently enrolled in a preservice teaching program and new teachers who were recently enrolled in the same preservice teaching program. The participants were not identifiable by name from their survey responses (this will be made known in the introduction of the survey). The institution in which participants are currently completing their preservice

studies was referred to by a general description when discussing related results. The location of the study will be referred to as “a private university in the state of New York.”

Researcher Perspective

My first job after getting my master’s degree was as a science intern in a mostly White school district. Their ELL (English Language Learner) population was very small (a handful of students). The department coordinator, whom I worked under, gave me some advice as I sought a full-time position. She told me to get my TESOL (Teaching English to Students of Other Languages) certification. She said it would come in handy because the population of students whose first language was not English was growing in the public school system. I listened to her advice and enrolled in Molloy’s TESOL certification program. By the time I got my first probationary teaching position, I had my TESOL certification.

My certification came in handy because I was responsible for teaching two sections of General Science to ELLs. My coursework and prior experience with ELLs allowed me to once again implement techniques to deliver instruction to ELL students. I began to talk to more teachers (science and other content), about the classes that I was teaching. When I told them I was teaching ELL general science, I was getting responses like, “Oh man, that is a tough group”, “I don’t like teaching those classes", “It is hard to teach them”, and “They are not good kids.” I thought to myself, how can they say things like this?

It is encounters with teachers like the ones above and conversations with teachers like the ones above that led me to my topic. My goal is to evaluate preservice content teacher programs and determine whether they are providing adequate ELL training for preservice content teachers. If certain programs are not deemed effective, I would also like to see a structural shift in these

programs to incorporate ELL preparation courses for content teachers. Better preservice teacher preparation for ELL students will lead to more effective teaching of those students in the field.

Chapter IV: Findings

Introduction

The purpose of this study was to determine how prepared and effective preservice content teachers feel regarding ELL student instruction and if feelings of preparedness and efficacy align. This study also examined in what areas preservice content teachers feel most and least effective. Finally, this study determined if there was a connection between student standing and perceived quality of preservice program. The study's purposes are outlined in its research questions:

> **RQ1.** Does preservice content teachers' sense of self-efficacy align to their perceived quality of their university program relative to ELL student instruction?
>
> **RQ2.** In which of the following areas, instructional strategies, student engagement, or classroom management, do preservice content area teachers feel most and least effective in ELL student instruction?
>
> **RQ3.** Is the preservice content area teacher's current standing- third-year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate, or first-year teacher - related to their responses regarding their effectiveness in ELL student instruction?

The following sections will provide an overview of reliability/validity of the instruments used, principles components analysis, participant demographics, mean scores from the program evaluation scale, correlations between self-efficacy and the program evaluation scale, one-way ANOVA to identify if there were significant differences between in mean scores of participants of different standings in their preservice program, mean score of efficacy from the adapted version of the TSES, as well as additional findings that extended the analysis.

Reliability and Principles Components Analysis

Reliability tests were done in order to determine the reliability of the adapted version of the TSES (Teacher Sense of Self Efficacy Survey), and the program evaluation scale created by

the researcher. Principles components analysis was done to determine the number of factors that the adapted version of the TSES produced.

Reliability - Adapted Version of TSES

A test for reliability was done to confirm that of the adapted version of Tschannen-Moran and Woolfolk Hoy's (2001) instrument. The subscale consisted of 12 items. A Cronbach alpha value of .96 was obtained (Table 1). The construct, engagement generated an alpha value of .89. The construct instructional strategies generated an alpha value of .96. The construct, classroom management, generated an alpha value of .89. These values indicate strong reliability for the survey instrument. Tschannen-Moran and Woolfolk Hoy's (2001) instrument generated an alpha value of .90. The construct, engagement generated an alpha value of .81. The construct instructional strategies generated an alpha value of .86. The construct, classroom management, generated an alpha value of .86 (Tschannen-Moran & Woolfolk Hoy, 2001).

Table 1

Reliability of Adapted Version of TSES

	M	*SD*	alpha
Adapted TSES	4.9	.51	.96
Engagement	5.2	.54	.89
Instructional Strategies	4.4	.47	.96
Classroom Management	5.1	.34	.89

Reliability - Program Evaluation Scale

A test for reliability was done to confirm that of the program evaluation scale created by the researcher. The subscale consisted of 5 items. A Cronbach alpha value of .82 was obtained (Table 2).

Table 2

Reliability of Program Evaluation Scale

	M	*SD*	alpha
Program Evaluation Scale	2.1	.21	.83

Principles Components Analysis

A confirmatory principles components analysis test was done to see if the adapted instrument measured the same number of constructs (three) that were measured in Tschannen-Moran and Woolfolk Hoy's (2001) instrument. Results revealed one component (Table 3). This means that the survey instrument used measured just one component, as the values shown in the table are very close to one another. When a forced principles components analysis was done (Table 4), three components were produced. The survey instrument was designed to measure three constructs (student engagement, instructional strategies, and classroom management). Questions 2,3,4, and11 measure self-efficacy in student engagement. Questions 5,9,10, and12 measure self-efficacy in instructional strategies. Questions 1,6,7, and 8 measure efficacy in classroom management. Results from the forced factor analysis are show in table four. Component one represents, "Efficacy in Student Engagement", component two represents, "Efficacy in Instructional Strategies, and component three represents, "Efficacy in Classroom Management". The values generated in Table 4 have a relatively close resemblance to the original factor analysis of the original scale.

Table 3

Principles Components Analysis TSES

	Component 1
How well do you feel you could implement alternative strategies for ELL students in your classroom?	.925
To what extent do you feel you could provide an alternative explanation or example when ELL students are confused?	.914
How much of a variety of assessment strategies do you feel you could use for ELL students?	.879
How well do you feel you could establish a classroom management system with each group of ELL students?	.870
To what extent do you feel you could craft good questions for your ELL students?	.869
How much do you feel you could do to get ELL students to believe they can do well in schoolwork?	.857
How much do you feel you could do to motivate ELL students who show low interest in schoolwork?	.837
How much do you feel you could do to help your ELL students value learning?	.833
How much do you feel you could assist families of ELL students in helping their children do well in school?	.828
How much do you feel you could do to get ELL children to follow classroom rules?	.764
How much do you feel you could do to control disruptive behavior of ELL students in the classroom?	.749
How much do you feel you could do to calm an ELL student who is disruptive or noisy?	.729

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

Table 4

Forced Principles Components Analysis TSES

	Component		
	1	2	3
Factor 1: Efficacy in Student Engagement			
2. How much do you feel you could do to motivate ELL students who show low interest in schoolwork?	**.378**	.758	.325
3. How much do you feel you could do to get ELL students to believe they can do well in schoolwork?	**.401**	.789	.298
4. How much do you feel you could do to help your ELL students value learning?	**.407**	.816	.208
11. How much do you feel you could assist families of ELL students in helping their children do well in school?	**.773**	.224	.382
Factor 2: Efficacy in Instructional Strategies			
5. To what extent do you feel you could craft good questions for your ELL students?	.779	**.357**	.305
9. How much of a variety of assessment strategies do you feel you could use for ELL students?	.757	**.506**	.181
10. To what extent do you feel you could provide an alternative explanation or example when ELL students are confused?	.797	**.424**	.295
12. How well do you feel you could implement alternative strategies for ELL students in your classroom?	.780	**.447**	.311
Factor 3: Efficacy in Classroom Management			
1. How much do you feel you could do to control disruptive behavior of ELL students in the classroom?	.180	.476	**.743**
6. How much do you feel you could do to get ELL children to follow classroom rules?	.473	.213	**.675**
7. How much do you feel you could do to calm an ELL student who is disruptive and noisy?	.299	.169	**.892**
8. How well can you establish a classroom management system with each group of ELL student?	.590	.453	**.454**

a. Rotation converged in 7 iterations.

Participant Demographics

Between October 5, 2023, and November 22, 2023, the survey was distributed to 96 individuals. A total of 83 individuals who responded to the survey. Upon review of the responses, the researcher found that there was an individual (N =1) who chose not to participate. That response was deleted giving the researcher an N of 82. There were some portions of the survey where all participant responses were not recorded. The demographic question regarding the area of certification was missing responses (N =6), however this was not a large issue because certification was not a construct analyzed in detail. In terms of the program evaluation scale and the adapted version of the TSES, there were a few responses (N = 4) missing, bringing the total responses for those constructs to N = 78. Since the goal sample size was 80, one could view this as missing only two responses. There was still enough data to run all the tests the researcher needed to answer the research questions. A series of demographic questions were asked to obtain important information that would be used as nominal variables in statistical analysis. These questions also allowed the researcher to better understand the frequency of participant responses. By utilizing university staff and resources, the researcher was able to acquire a diverse group of preservice teacher responses to complete statistical analysis.

Age Range

Participants were asked to select under which age range they fell. The participant sample included 73.2% (n= 60) in the 18-25 age range, 17.1% (14) in the 26-33 age range, 3.7% (n =3) in the 34-41 and the 42-49 age range, and 2.4% (n=2) in the 50-57 age range. A breakdown of the age ranges is shown in Table 5.

Current Standing

Participants were asked to indicate their current standing in their preservice program. The participant sample included 15.9% (n=13) that were third-year undergraduate students, 19.5% (n=16) that were fourth-year undergraduate students, 20.7% (n=17) that were first-year graduate students, 24.4% (n=20) that were second-year graduate students, and 19.5% (n=16) that were first-year teachers. A breakdown of the student standing is shown in Table 5.

Area of Certification

Participants were asked to indicate their area of certification. The participant sample included 23.2% (n=19) with a concentration in mathematics, 11.0% (n=9) with a concentration in the area of science, 19.5% (n=16) with concentrations in English, social studies, and special education, respectively. Table 5 shows a breakdown of participant certification areas.

ELL Course Offerings

Participants were asked if their preservice program offered courses pertaining to ELL instruction. 22.0% (n=18) of participants indicated that their preservice program does/did offer courses pertaining to the instruction of ELL students, 18.3% (n=15) indicated that their program does/did offer courses pertaining to the instruction of ELL students, and 59.8% (n=49) were unsure if their program does/did offer courses pertaining to the instruction of ELL students. Table 5 shows a breakdown of participants' responses to this question.

First Language

Participants were asked if English was their first language. English is the first language of 92.7% (n=76) of the participants. English is not the first language of 7.3% (n=6) of the participants. Table 5 shows a breakdown of how many participants have English as a first language and how many do not.

ELL Courses Taken

Participants were asked if they have taken a course pertaining to the instruction of ELL students. 18.3% (n=15) of participants have taken a course pertaining to the instruction of ELL students and 81.7% (n=67) have not. Table 5 shows a breakdown of the number of participants that have and have not taken a course pertaining to the instruction of ELL students.

Mandatory ELL Instructional Course

Participants who answered, "yes" to having taken a course pertaining to the instruction of ELL students were directed to this question asking if the course that they took was mandatory. Of the participants who answered "yes" to the question, "Have you taken a course pertaining to the instruction of ELL (English Language Learner) students?" (n=15), 13.4% (n=11) said this class is mandatory, 3.7% said it was not mandatory and 1.2% (n=1) were unsure. Table 5 shows this breakdown.

Enrolling in an ELL Instructional Course

Participants were asked if they would enroll in a class pertaining to the instruction of ELL students if it were not mandatory. 79.3% (n=65) would enroll in a class pertaining to the instruction of ELL students if it were not mandatory and 20.7% (n=17) would not. Table 5 shows this breakdown.

Table 5

Demographic Questions

Characteristic	*n*	*%*
Age Range		
18-25	60	73.2
26-33	14	17.1
34-41	3	3.7

42-49	3	3.7
50-57	2	2.4
Current Standing		
Third-year undergraduate student	13	15.9
Fourth-year undergraduate student	16	19.5
First-year graduate student	17	20.7
Second-year graduate student	20	24.4
First-year teacher	16	19.5
Area of Certification		
Mathematics	19	23.2
Science	9	11.0
English	16	19.5
Social Studies	16	19.5
Special Education	16	19.5
ELL Course Offerings	18	22.0
Yes, the program does/did offer courses	15	18.3
No, the program does/did not offer courses	49	59.8
I am unsure if the program offers/offered courses	18	22.0
Participant First Language English		
Yes	76	92.7
No	6	7.3
ELL Course Taken		
Yes	15	18.3
No	67	81.7
Mandatory ELL Course		
Yes	11	13.4
No	3	3.7
Unsure	1	1.2

Enrolling in ELL Course		
Yes	65	79.3
No	17	20.7

Program Evaluation Responses

The frequency of responses to each of the program evaluation scale questions are shown below to accentuate student perceptions of their preservice program.

Prior Knowledge of ELL Instruction

Participants were asked if they had prior knowledge of ELL instruction before enrolling in their preservice program. 25.6% (n=21) indicated that they strongly disagreed with the statement "Before enrolling in my preservice teaching program, I already had prior knowledge of ELL instruction." 56.1% (n=46) disagreed with that statement. 11.0% (n=9) agreed and 6.1% (n=5) strongly agreed. Table 6 shows the breakdown of responses to this question.

Adequate Number of Courses

Participants were asked if their preservice program has offered an adequate number of courses to prepare them to teach ELL students in the classroom. 26.8% (n=22) indicated that they strongly disagreed with the statement "My preservice teaching program has offered an adequate number of courses to prepare me to teach ELL students in the classroom." 52.4% (n=43) disagreed with that statement. 17.1% (n=14) agreed and 2.4% (n=2) strongly agreed. Table 6 shows the breakdown of responses to this question.

Knowledge of Instructing ELL Students

Participants were asked if at this point in their preservice teaching program, they felt that their knowledge of instructing ELL students has increased greatly. 22.0% (n=18) indicated that they strongly disagreed with the statement "At this point in my preservice teaching program, I

feel that my knowledge of instructing ELL students has increased greatly." 45.1% (n=37) disagreed with that statement. 20.7% (n=17) agreed and 11.0% (n=9) strongly agreed. Table 6 shows the breakdown of responses to this question.

Being an Effective Teacher to ELL Students

Participants were asked if at this point in their preservice program, they felt that they would be an effective teacher to ELL students. 22.0% (n=18) indicated that they strongly disagreed with the statement "At this point in my preservice teaching program, I feel that I would be an effective teacher to ELL." 46.3% (n=38) disagreed with that statement. 23.2% (n=19) agreed and 6.1% (n=5) strongly agreed. Table 6 shows the breakdown of responses to this question.

Attitude and Perceptions of ELL Students

Participants were asked if at this point in their preservice teaching program, their attitude and perceptions of ELL students had changed from negative to positive. 13.4% (n=11) indicated that they strongly disagreed with the statement "At this point in my preservice teaching program, my attitude and perceptions of ELL students have changed from negative to positive." 40.2% (n=33) disagreed with that statement. 25.6% (n=21) agreed and 17.1% (n=14) strongly agreed. Table 6 shows the breakdown of responses to this question.

Table 6

Program Evaluation Responses

Prompt	*n*	*%*
Before enrolling in my preservice teaching program, I already had prior knowledge of ELL instruction		
Strongly Disagree	21	25.6
Disagree	46	56.1

Agree	9	11.0
Strongly Agree	5	6.1
Strongly Disagree	21	25.6
My preservice teaching program has offered an adequate number of courses to prepare me to teach ELL students in the classroom.		
Strongly Disagree	22	26.8
Disagree	43	52.4
Agree	14	17.1
Strongly Agree	2	2.4
At this point in my preservice teaching program, I feel that my knowledge of instructing ELL students has increased greatly.		
Strongly Disagree	18	22.0
Disagree	37	45.1
Agree	17	20.7
Strongly Agree	9	11.0
At this point in my preservice teaching program, I feel that I would be an effective teacher to ELL.		
Strongly Disagree	18	22.0
Disagree	38	46.3
Agree	19	23.2
Strongly Agree	5	6.1
At this point in my preservice teaching program, my attitude and perceptions of ELL students have changed from negative to positive.		
Strongly Disagree	11	13.4
Disagree	33	40.2
Agree	21	25.6
Strongly Agree	14	17.1

RQ Statistical Tests

A series of statistical tests (descriptive statistics, correlations, and ANOVAs) were done in SPSS to help the research answer the research questions.

RQ1. Does preservice content teachers' sense of self-efficacy align to their perceived quality of their university program relative to ELL student instruction?

In order to answer this research question, the mean score for the program evaluation survey as a whole and mean score for each question was calculated. This was determined by computing the total scores from Q1-Q5, which were all categorized as "program evaluation quality" because of principles components analysis. Additionally, correlations between program evaluation quality and sense of self-efficacy in student engagement, instructional strategies and classroom management were done to determine the type of correlation (positive or negative) and whether or not that correlation was significant. Total scores for each construct: student engagement (questions 2,3,4, and 11), instructional strategies (questions 5,9,10, and 12), and classroom management (questions 1,6,7, and 8) were calculated.

Means Score for Preservice Program Quality Survey

The mean score of the participants that completed the program evaluation scale was 10.74 (*SD* = 3.29). This data is displayed in Table 7.

Table 7

Preservice Program Quality Mean Score

	n	Minimum	Maximum	*M*	*SD*
Preservice Program Quality	78	5.00	20.0	10.74	3.29
Valid N (listwise)	78				

Means Score for Perceived Program Quality Survey Statements

The mean score for statement one of the program evaluation survey was 1.98 (*SD* = .79). The mean score for statement two of the program evaluation survey was 1.95 (*SD* = .74). The mean score for statement three of the program evaluation survey was 2.21 (*SD* = .92). The mean score for statement four of the program evaluation survey was 2.14 (*SD* = .84). The mean score for statement five of the program evaluation survey was 2.48 (*SD* = .95). The mode score for each statement of the program evaluation survey was 2 (disagree). See Table 8 for a breakdown of this data.

Table 8

Preservice Program Quality Scores

		Before enrolling in my preservice teaching program, I already had prior knowledge of ELL instruction	My preservice teaching program has offered an adequate number of courses to prepare me to teach ELL students in the classroom	At this point in my preservice teaching program, I feel that my knowledge of instructing ELL students has increased greatly	At this point in my preservice teaching program, I feel that I would be an effective teacher to ELL students	At this point in my preservice teaching program, my attitude and perceptions of ELL students have changed from negative to positive
N	Valid	81	81	81	80	79
	Missing	1	1	1	2	3
M		1.98	1.95	2.21	2.14	2.48
m		2	2	2	2	2
SD		.790	.740	.918	.838	.945

Correlation - Perceived Program Quality and Self-Efficacy in Student Engagement, Instructional Strategies, and Classroom Management

This test was done to determine if perceived program evaluation quality is significantly correlated to sense of self-efficacy in student engagement, instructional strategies, and classroom management. Perceived program quality and self-efficacy in student engagement have a positive,

significant correlation r=.799, p<.05. Perceived program quality and self-efficacy in instructional strategies have a positive, significant correlation r=.837, p<.05. Perceived program quality and self-efficacy in classroom management have a positive, significant correlation r=.728, p<.05 (See Table 9).

Table 9

Correlations – Perceived Program Quality and Self-Efficacy in Student Engagement, Instructional Strategies, and Classroom Management

Variable	*n*	*M*	*SD*	1	2	3	4
1. Perceived Program Quality	77	10.74	3.29	-	.799**	.837**	.728**
2. Self-Efficacy in Student Engagement	78	20.73	6.94		-		
3. Self-Efficacy in Instructional Strategies	78	17.58	9.43			-	
4. Self-Efficacy in Classroom Management	78	20.65	6.11				-

Note. **. Correlation is significant at the 0.01 level (2-tailed).

RQ2. In which of the following areas, instructional strategies, student engagement, or classroom management, do preservice content area teachers feel most and least effective in ELL student instruction?

Means scores for the areas of instructional strategies, student engagement, or classroom management were determined by computing total scores instructional strategies, student engagement, and classroom management. The researcher chose to use the components produced

in the forced factor analysis in order to carry out statistical analysis. Forced factor was chosen because the initial analysis showed a different breakdown.

Mean Scores of Adapted TSES

The mean self-efficacy score for student engagement was 20.73 (*SD* = 6.94). The mean self- efficacy score for instructional strategies was 17.58 (*SD* = 9.43). The mean self-efficacy score for classroom management was 20.65 (*SD* = 6.11). Of the three constructs, participants felt a greater of a sense of self-efficacy in student engagement, followed by classroom management, then instructional strategies (See Table 10).

Table 10

Mean Scores of Adapted TSES

	n	*M*	*SD*
Self-Efficacy in Student Engagement	78	20.73	6.94
Self-Efficacy in Instructional Strategies	78	17.58	9.43
Self-Efficacy in Classroom Management	78	20.65	6.11
Valid N (listwise)	78		

RQ3. Is the preservice content area teacher's current standing third-year undergraduate, fourth-year undergraduate, first-year graduate, second-year graduate, or first-year teacher - related to their responses regarding their effectiveness in ELL student instruction?

In order to answer this research question, the researcher ran correlation analysis to determine if current student standing and perceived preservice program quality were significantly correlated. Additionally, the researcher ran a one-way ANOVA in order to determine if there was significant difference in the means of students depending on their current standing in their preservice program.

One-Way ANOVA - Current Standing and Preservice Program Quality and Sense of Self-Efficacy in Student Engagement, Instructional Strategies and Classroom Management

A one-way ANOVA in order to determine if there was significant difference in the means of students depending on their current standing in their preservice program. A one-way analysis of variance showed that students' current standing was not significant in terms of the perceived quality of their preservice program (Table 11). Third-year undergraduate students had an average score of 10.3 (*SD* = 2.97), fourth year-undergraduate students had an average score of 9.69 (*SD* = 2.98), first-year graduate students had a mean score of 10.9 (*SD*= 3.02), second-year graduate students had an average of 11.8 (*SD*=3.43), and first-year teachers had an average score of 10.7(*SD* = 3.89). One-way analysis of variance also showed that students' current standing was not significant in terms of their sense of self efficacy in the areas of student engagement, instructional strategies, and classroom management. In the area of student engagement, third-year undergraduate students had an average score of 20.9 (*SD* = 5.23), fourth-year undergraduate students had an average score of 18.0 (*SD* = 5.65), first-year graduate students had a mean score of 22.4 (*SD*= 6.18), second-year graduate students had an average of 23.1 (*SD*=7.07), and first-year teachers had an average score of 18.7(*SD* = 8.95). In the area of instructional strategies, third-year undergraduate students had an average score of 17.3 (*SD* = 7.95), fourth-year undergraduate students had an average score of 13.2 (*SD* = 7.76), first-year graduate students had a mean score of 20.7 (*SD*= 8.20), second-year graduate students had an average of 19.9 (*SD*=9.44), and first-year teachers had an average score of 16.8 (*SD* = 10.3). In the area of classroom management, third-year undergraduate students had an average score of 18.4 (*SD* = 4.44), fourth-year undergraduate students had an average score of 19.1 (*SD* = 3.79), first-year

graduate students had a mean score of 21.6 (*SD*= 7.09), second-year graduate students had an average of 22.2 (*SD*= 5.63), and first-year teachers had an average score of 21.1 (*SD* = 8.24).

Table 11

One-Way ANOVA - Current Standing and Perceived Preservice Program Quality

Measure	Third-year undergraduate student		Fourth-year undergraduate student		First-year graduate student		Second-year graduate student		First-year teacher		F(4,73)	η^2
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
Perceived Preservice Program Quality	10.3	2.97	9.69	2.98	10.9	3.02	11.8	3.43	10.7	3.89	.948	.049
Self-Efficacy in Student Engagement	20.9	5.24	18.0	5.65	22.4	6.18	23.1	7.07	18.7	8.95	1.78	.089
Self-Efficacy in Instructional Strategies	17.3	7.95	13.2	7.76	20.7	8.20	19.9	9.44	16.8	10.3	1.82	.091
Self-Efficacy in Classroom Management	18.4	4.44	19.1	3.79	21.6	7.09	22.2	5.63	21.1	8.24	1.09	.056

Note. ***p<.001

Correlation - Current Student Standing and Perceived Preservice Program Quality

A correlation test was done to determine if current student standing, and perceived preservice program quality were significantly correlated. Perceived program quality and students' current standing were not significantly correlated r=.133, p>.05. Self-efficacy in student engagement, instructional strategies, and classroom management, respectively, were not significantly correlated r=.032, r=.102, r=.188, p>.05. (See table 12).

Table 12

Correlation Between Current Standing and Perceived Preservice Program Quality, Self-Efficacy in Student Engagement, Instructional Strategies, and Classroom Management

Variable	*M*	*SD*	1	2	3	4	5
1. Current Standing	3.12	1.36	-	.133	.032	.102	.188
2.Perceived Program Quality	10.74	3.29		-			
3. Self-Efficacy in Student Engagement	20.73	6.94			-		
4.Self-Efficacy in Instructional Strategies	17.58	9.43				-	
5.Self-Efficacy in Classroom Management	20.65	6.11					-

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Additional Statistical Tests

In addition to reliability, descriptive statistical, and the tests done to answer the research questions, the researcher also performed the following tests. The researcher investigated if the means of those who took a course (answered "yes" pertaining to the instruction of ELL students were significantly different from those who did not (answered "no") take a course pertaining to ELL instruction in terms of perceived program quality and/or self-efficacy by running independent samples t-test.

Independent Samples T-Test - Taking a Course Pertaining to ELL Instruction and Perceived Preservice Program Quality, Sense of Self-Efficacy in Student Engagement, Instructional Strategies, and Classroom Management

This test was done to see if there was a statistically significant difference in the means of participants who have taken a course pertaining to ELL instruction versus those who have not, in terms of perceived preservice program quality, self-efficacy in student engagement, instructional strategies, and classroom management regarding ELL students. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their perceived quality of their preservice program (M=14.8 SD = 3.33) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=9.92 SD = 2.61); t (76) = 5.91, p<.001. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in student engagement (M=27.3 SD = 7.44) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=19.4 SD = 6.07); t (76) = 4.11, p<.001. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in instructional strategies (M=25.8 SD = 9.27) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=16.1 SD = 8.11); t (76) = 3.86, p<.001. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in student classroom management (M=26.8 SD = 7.75) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=19.4 SD = 4.92); t (76) = 4.47, p<.001. See Table 13 for analysis.

Table 13

Independent Samples T-Test Taking a Course Pertaining to ELL Instruction and Perceived Preservice Program Quality, Self- Efficacy in Student, Engagement, Instructional Strategies and Classroom Management

Measure	Yes		No		t (76)	p	Cohen's d
	M	SD	M	SD			

Perceived Preservice Program Quality	14.8	3.33	9.92	2.61	5.90	<.001	2.744
Self-Efficacy in Student Engagement	27.3	7.44	19.4	6.07	4.11	<.001	6.314
Self-Efficacy in Instructional Strategies	25.8	9.27	16.1	8.11	3.86	<.001	8.309
Self-Efficacy in Classroom Management	26.8	77.6	19.4	3.32	3.32	.003	5.469

Additional Tests

Additionally, the researcher ran correlations to see if participant area of certification was correlated to perceived program quality and/or self-efficacy. No significant correlations were found. ANOVAs were done to see if the means of participants in varying certification areas were significantly different in terms of perceived program quality and/or self-efficacy. The difference in the means was not significant. Another set of correlations were also done to see if English as participants' first language was correlated to self-efficacy. There were no significant correlations between the two. There was a positive correlation between English as the participants' first language and program quality, however, when an independent sample t-test was done, there was no significant difference in the mean scores pertaining to program quality between those with English as a first language and those whose first language is not English.

Through SPSS analysis, positive correlations were found, negative correlations were found, mean scores were calculated, and significant differences in means were found. This allowed the researcher to determine the answers to the study's research questions. These areas of significance will be the focus of the discussion.

Chapter V: Discussion

Summary of Findings

This study surveyed secondary education preservice teachers currently attending a private university located in New York, who are seeking certification in the areas of secondary mathematics, science, English, social studies, or special education. The researcher utilized a survey instrument in order to determine if perceived preservice program quality was related to a sense of self-efficacy in ELL student instruction. Additionally, the researcher sought to determine if participants felt most effective in student engagement, instructional strategies or classroom management regarding ELL students, and if current student standing was related to preservice teacher sense of self-efficacy. The researcher distributed a Qualtrics survey via email to instructors at the university who then shared the survey with their respective classes of students mentioned above. The researcher also utilized first-year teachers who attended the same university as the other participants to help yield an acceptable sample size, and to give these students an opportunity to reflect on their preservice experience. After data were collected, they were exported from Qualtrics to SPSS for analysis. It was found that perceived preservice program quality and sense of self-efficacy are related, participants felt the greatest sense of self-efficacy in student engagement, and that there is no relationship between secondary preservice teachers current standing and effectiveness in ELL student instruction. A more in-depth analysis of these findings will be detailed in the sections to follow.

RQ1. Does secondary preservice teachers' sense of self-efficacy align to their perceived quality of their university program relative to ELL student instruction?

After a series of tests, it was found that preservice teachers' sense of self-efficacy does align to their perceived quality of their preservice program. The answer to this question was

derived from data extracted utilizing the program evaluation portion of the survey. In this section of the survey, participants were given statements regarding having any prior knowledge about teaching ELL students from outside their university program, if their preservice program has offered an adequate number of courses to prepare them to teach ELL students in the classroom, if content of that course has increased their knowledge of ELL instruction, and if they experienced a change in attitude or perceptions toward ELLs after taking a course about ELL instructional skills. They had to indicate whether they strongly disagreed, disagreed, agreed or strongly agreed with each of the five statements. The minimum score one could obtain was five. The maximum score one could obtain was twenty. The mean score of the participants that completed the program evaluation scale was 10.74 (*SD* = 3.29). Mean scores for each of the program evaluation survey questions were calculated in order to determine in which areas participants felt most knowledgeable. The mean score for question one of the program evaluation survey was 1.98 (*SD* = .79). The mean score for statement two of the program evaluation survey was 1.95 (*SD* = .74). The mean score for statement three of the program evaluation survey was 2.21 (*SD* = .92). The mean score for statement four of the program evaluation survey was 2.14 (*SD* = .84). The mean score for statement five of the program evaluation survey was 2.48 (*SD* = .95).

This data show that participants disagreed with statements one, “Before enrolling in my preservice teaching program, I already had prior knowledge of ELL instruction” and two, “My preservice teaching program has offered an adequate number of courses to prepare me to teach ELL students in the classroom” the most. Participants showed more of a sense of agreement (higher means) with statements three, “At this point in my preservice teaching program, I feel that my knowledge of instructing ELL students has increased greatly”, four, “At this point in my preservice teaching program, I feel that I would be an effective teacher to ELL students”, and

five, “At this point in my preservice teaching program, my attitude and perceptions of ELL students have changed from negative to positive”. However, it is important to note that despite the higher means for questions three through five, the mode response to each of the five statements was two (disagree). These results echo some of the findings in previous research. Participants in Kolano and King’s (2015) study recognized that they had little knowledge about working with ELLs, yet those who took a class pertaining to ELL instruction experienced a change in attitude regarding these students, like participants in this study. A literature review done by Rubenstein-Avila and Hye Lee (2014) found that single subject teachers receive limited preparation for ELL students. Participants in this study indicated that their preservice program has not offered an adequate number of courses pertaining to ELL student instruction. Durgunoglu and Hughes (2010) found that preservice teachers from a medium size midwestern university in the United States had neutral views about preparedness and self-efficacy. Authors viewed this neutrality as negative “because these participants had completed their teaching education, as well as diversity training and were doing their student teaching and still they did not feel well-prepared to address the needs of ELLs” (Durgunoglu & Hughes, 2010, p. 35). In this study, a little of 40% of the participants were at the end of their preservice teaching programs (fourth-year undergraduate or second-year graduate) and yet the most frequent response to the program evaluation questions was, “disagree.” This shows that despite completing what was necessary in their preservice program, participants were leaving without a sense of preparedness and self-efficacy to teach ELL students.

To further assess the answer to research question one, the researcher ran correlations to see if there was any association between perceived preservice program quality and participant sense of self-efficacy in student engagement, instructional strategies, and classroom

management. Perceived program quality and self-efficacy in student engagement have a positive, significant correlation r=.799, p<.05, perceived program quality and self-efficacy in instructional strategies have a positive, significant correlation r=.837, p<.05, and perceived program quality and self-efficacy in classroom management have a positive, significant correlation r=.728, p<.05. These results suggest that the greater the perceived program quality, the greater the sense of self-efficacy in student engagement, instructional strategies, and classroom management. Several educational institutions in the Unites States have implemented either "*infused"* or *"endorsement" preservice* programs. Endorsed programs offer ELL instructional courses separate from content courses, meaning no content methods (math, science, English, social studies, special education) are taught. Infused programs incorporate ELL instructional skills into methods (math, science, English, social studies, special education) courses (Peker, 2019). Studies have demonstrated the benefits of both types of programs in terms of preparedness of preservice teachers to teach ELL students. States like Florida have utilized infused models in their preservice programs. Students received explicit instruction in ELL pedagogy in their general education classes. They were also required to complete "approximately 20 hours of clinical/field experience with ELLs in a variety of instructional and extracurricular activities" (Coady et al., 2011 p. 228). At the end of their infused model experience, preservice teachers felt more prepared and effective in terms of ELL instruction (Coady et al., 2011). Other educational institutions in southern Unites States have utilized endorsed programs. Students took courses explicit in ELL instruction and were required to spend time in the field with ELL students. Students reported feelings of high self-efficacy by the end of this course. Students also reported high confidence levels at the end of this course as well (Jimenez-Silva et al., 2012). Results from studies, including this one, support the notion that if preservice programs are structured to

incorporate coursework that focus on ELL instruction or field experience with ELL students, preservice teachers will leave the program with a greater sense of self-efficacy (Torres & Tackett 2016).

RQ2. In which of the following areas, instructional strategies, student engagement, or classroom management, do preservice content area teachers feel most and least effective in ELL student instruction?

After statistical analysis was done, it was found that participants felt the greatest sense of self-efficacy in student engagement and lowest sense of self-efficacy in instructional strategies regarding ELL student instruction. In order to answer the second research question, the researcher analyzed the mean efficacy scores of the adapted TSES scale. The mean self-efficacy score for student engagement was 20.73 (SD = 6.94). The mean self-efficacy score for instructional strategies was 17.58 (SD = 9.43). The mean self-efficacy score for classroom management was 20.65 (SD = 6.11). Of the three constructs measured, participants felt the greatest sense of self-efficacy in student engagement, then classroom management. Participants felt the lowest sense of self-efficacy in instructional strategies. These results can be attributed to the fact that 81.7% of the participants surveyed have not taken a course pertaining to the instruction of English language learners. This high percentage is connected to the low self-efficacy score for instructional strategies. Without having taken a course specific to ELL instruction, how can participants feel effective to ELL students? The means for self-efficacy in student engagement and classroom management differed by 0.08. These two constructs are a little more universal in the sense that there are not terribly specific methods when it comes to capturing a student's attention or discipling a student. A general set of classroom rules can be made for all students to follow; it just may have to be translated for an ELL student. Things like

videos, images, and sounds can all be used in a lesson to "hook" students. However, to really engage ELL students, videos, images, and sounds from their native countries can be incorporated to really grab their attention.

Studies have shown that one of the most helpful methods for preservice teachers learning ELL pedagogy is the teaching of specific instructional strategies for ELLs (Jimenez-Silva et al., 2012). Knowing these skills are crucial for the success of the teacher, as well as the student. Some specific instructional strategies include direct teaching of new words. Students should hear, see, and say words in order to build their proficiency (Samson and Collins, 2012). Utilizing hands-on activities to reinforce vocabulary is also helpful. Explicit instruction of academic language should be done in content courses. Again, this can be done through visual aids, having students listen to words then repeat words, and writing words. ELL students need to understand the difference between academic language and informal language (Samson and Collins, 2012). This all speaks to the fact that educators need to have a working knowledge and understanding of oral language development, academic language, and cultural diversity and inclusivity (Samson & Collins, 2012).

RQ3. Is the preservice content area teacher's current standing - first year undergraduate, second year undergraduate, graduate, or first-year teacher – related to their responses regarding their effectiveness in ELL student instruction?

Analysis showed that secondary preservice teacher's current standing was not related to their responses regarding their effectiveness in ELL instruction. In order to answer this research question, the researcher ran a correlation analysis to determine if current student standing and perceived preservice program quality were significantly correlated. It was found that perceived program quality and participants' current standing were not significantly correlated r=.133,

$p>.05$. The researcher also ran a correlation analysis to determine if current student standing and participant sense of self-efficacy in student engagement instructional strategies or classroom management were significantly correlated. Self-efficacy in student engagement, instructional strategies, and classroom management, respectively, were not significantly correlated to participants' current standing $r=.032$, $r=.102$, $r=.188$, $p>.05$. Additionally, the researcher ran a one-way ANOVA to determine if there was significant difference in the means of students depending on their current standing in their preservice program. Analysis showed that students' current standing was not significant in terms of the perceived quality of their preservice program or sense of self-efficacy toward ELL instruction. In terms of perceived quality of preservice program and sense of self-efficacy in student engagement, instructional strategies, and classroom management, respectively, third-year undergraduate students had an average score of 10.3 (SD = 2.97), 20.9 (SD = 5.24), 17.3 (SD = 7.95), 18.4 (SD = 4.44) fourth-year undergraduate students had an average score of 9.69 (SD = 2.98), 18.0 (SD = 5.65), 13.2 (SD = 7.76), 19.1 (SD = 3.79), first-year graduate students had a mean score of 10.9 (SD= 3.02), 22.4 (SD = 6.18), 20.7 (SD = 8.20), 21.6 (SD = 7.09), second-year graduate students had an average of 11.8 (SD=3.43), 23.1 (SD = 7.07), 19.9 (SD 9.44), 22.2 (SD 5.63), and first-year teachers had an average score of 10.7(SD = 3.89), 18.7 (SD = 8.95), 16.8 (SD = 10.3), 21.1 (SD = 8.24). There was a relatively even distribution of participants in terms of their current standing: 13 third-year undergraduate students, 16 fourth-year undergraduate students, 17 first-year graduate students, and 20 second-year graduate students. These results demonstrate that it didn't matter at what point in their preservice journey the students were, there were no greater perceptions or knowledge in any particular year compared to the other. This point can be connected to the fact that only 15 of the 82 participants in this survey have taken a class specific to ELL student instruction in addition to

most responses to the program evaluations statements being “disagree”. One would think that teachers in the field would have responded to these questions in a more positive light. However, the data does not reflect that. It is possible that these teachers in the field that were surveyed genuinely feel unprepared from their preservice program. They may also be experiencing frustrations from being new in the field and those frustrations caused their more negative responses. When teachers are ill-prepared during their preservice years, they go into the classroom ill-prepared. Preservice teachers who are enrolled in courses that taught innovative pedagogies/strategies feel better prepared/confident to teach ELL students (Mills et al., 2020).

Implications

To reiterate, the major findings of the study were that perceived preservice program quality and sense of self-efficacy are related, participants felt the greatest sense of self-efficacy in student engagement and the lowest sense of self-efficacy in instructional strategies, and that there is no relationship between a secondary preservice teachers’ current standing and self-perceived effectiveness in ELL student instruction. These results support several studies done that emphasize the importance of preparing preservice to teachers to teach ELL students. The participant sample of this study consisted of secondary education preservice teachers who will be certified in either mathematics, science, English, social studies or special education. Teachers who are enrolled in preparation programs with ELL methodologies feel more effective in the classroom compared to teachers who do not receive ELL methodologies in their coursework (Tran, 2015). Content area teachers who are exposed to explicit ELL pedagogical instruction and/or field experience involving ELL students can implement specific practices compared to those who are not exposed to explicit ELL pedagogical instruction (Lyon et al., 2018). Similarly, special education teachers, who at some point or another, must teach multiple content areas, are

experiencing the same lack of preparedness and efficacy as mathematics, science, English, social studies teachers. Recall that it is possible for the ELL and special education services to overlap. Despite that overlap, special education preparation programs are not including the content needed for teachers to teach ELL students with disabilities (Miranda et al., 2023). Results of this study are similar to many of those referenced in the literature. Students at this particular private institution in New York are not receiving the explicit instruction that they need to effectively teach ELL students.

One of the most important implications for this study parallels those from the literature review; there is a need to incorporate courses explicit to ELL student instruction for all disciplines. Again, preservice teachers at this particular private institution in New York are not receiving the explicit instruction that they need to effectively teach ELL students in the classroom. What makes this implication so important is that it pertains to leadership. Higher education leaders are those that have the power to initiate this type of restructuring. However, not all of the higher educational establishments are on the same page in terms of this restructuring. Some higher educational establishments have ELL specific programs for preservice teachers, and some states that do not. In some higher educational establishments ELL instructional courses are not mandatory and students are choosing not to take them (Hallman & Meineke, 2016). There are many cases where the lack of knowledge of ELL instruction comes from the top and trickles down to the preservice teachers. Roy-Campbell (2013) explained that one of the reasons that teachers do not have the knowledge to work with ELLs is because "the educators who prepare these teachers do not provide them with this knowledge because they themselves have not received this preparation" (p. 256). This is a large problem. If the individuals in charge do not have these specific skills, how can the preservice teachers get the

skills that they need? Additionally, there are some individuals who do not feel that it is necessary to include this particular type of instruction in their program content or special education programs (Miranda et al., 2023). There have been educational organizations that have given their faculty the opportunity to acquire these preparatory skills. Those who have gone to professional developments regarding ELL instruction were able to revise their syllabi to ensure specific needs of ELLs were addressed in their courses. Additionally, the teacher educators themselves felt more confident to be able to teach their students how to meet the needs of ELL students (Nguyen et al., 2013). The researcher is not sure of the specific knowledge in terms of ELL instruction that leaders at the university in this study possess, however, based on the results of this sample population from the university, some type of restructuring needs to be done. Most of the secondary content area and special education teachers do not feel knowledgeable and effective if they had to teach ELL students; only those who have taken a course do.

In addition to the analysis done to answer the research questions, the researcher ran several other statistical tests that extended the analysis. The researcher ran several correlation tests to see if taking a course pertaining to the instruction of ELL students was related to perceived program quality and/or self-efficacy. All correlations done were negative and significant. Perceived program quality and having taken a course pertaining to the instruction of ELL students have a negative, significant correlation r=-.561, p<.05. Self-efficacy in student engagement and having taken a course pertaining to the instruction of ELL students have a negative, significant correlation r=-.427, p<.05. Self-efficacy in instructional strategies and having taken a course pertaining to the instruction of ELL students have a negative, significant correlation r=-.405, p<.05. Self-efficacy in classroom management and having taken a course pertaining to the instruction of ELL students have a negative, significant correlation r=-.456,

$p<.05$. In terms of the data for this study, these correlations mean, the more participants do not take a course pertaining to ELL student instruction, the less effective they feel in terms of ELL student instruction. This could simply mean that since a majority of the participants surveyed have not taken a course in ELL instruction, they felt less prepared and therefore less effective in terms of teaching ELL students. Independent samples t-test were done to see if the means of those who took a course pertaining to the instruction of ELL students were significantly different from those who did not take a course pertaining to ELL instruction in terms of perceived program quality and/or self-efficacy. All independent samples t-tests showed that there was a significant difference in mean perceived preservice program quality and sense of self-efficacy between participants who had taken a course pertaining to ELL instruction and participants who had not.

Individuals who took a course pertaining to the instruction of ELL students differed significantly in their perceived quality of their preservice program (M=14.8 SD = 3.33) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=9.92 SD = 2.61); t (76) = 5.91, $p<.001$. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in student engagement (M=27.3 SD = 7.44) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=19.4 SD = 6.07); t (76) = 4.11, $p<.001$. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in instructional strategies (M=25.8 SD = 9.27) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=16.1 SD = 8.11); t (76) = 3.86, $p<.001$. Individuals who took a course pertaining to the instruction of ELL students differed significantly in their sense of self-efficacy in student classroom management (M=26.8 SD =

7.75) compared to individuals who did not take a course pertaining to the instruction of ELL students (M=19.4 SD = 4.92); t (76) = 4.47, p<.001. It can be seen from these data that participants who have received explicit ELL instruction had higher mean scores both for program quality and for self-efficacy; the likely reason being these participants were given the tools that they need to feel confident and effective to teach ELL students.

The researcher conducted several more statistical tests; however, these tests did not yield significant results when deeply analyzed. Correlations were done to see if English as participants' first language was correlated to self-efficacy. There were no significant correlations between the two. There was a positive correlation between English as the participants' first language and program quality, however, when an independent sample t-test was done, there was no significant difference in the mean scores pertaining to program quality between those with English as a first language and those whose first language is not English. The researcher was curious to see if participant area of certification was correlated to perceived program quality and/or self-efficacy. The review of literature revealed that no matter the certification area, preservice teachers were not feeling prepared/effective to teach ELL students. Results from this analysis showed the same. No significant correlations were found. ANOVAs were done to see if the means of participants in varying certification areas were significantly different in terms of perceived program quality and/or self-efficacy; they did not.

Limitations

Regarding limitations of this study, there are a few items that should be addressed. The first limitation that posed a problem is time. In order to have completed the study in a timely manner, data needed to be collected and analyzed within a five-month period. Though time is limited, the validity and reliability of the survey instrument helped to ensure the data collected and analyzed

is accurate. The limitation of time gave rise to another - sample size. Due to limited time, the survey was distributed to participants from one university even though there are more than one university on Long Island and in New York that have preservice teaching programs. Much like the United States, there is little continuity in terms of preservice program structure among the educational institutions in New York. Another limitation of this study is that one of the aspects (student reporting) of program evaluation is being explored. It was determined that this aspect was most relevant to this particular study at this time. For future studies when time is less of a limitation, more aspects of program evaluation can be explored. Additionally, the fact that this study was conducted at one of many educational institutions in New York will limit generalizability. To increase generalizability, a study including many or if possible, all educational institutions in New York, would have to be done. An additional limitation of this study is that the gender and ethnicity of participants were not identified. These variables were not pronounced in the literature review. However, they may offer some more insight into this topic and would be included in future studies. Again, to address this and any other limitations that may arise throughout the study, the aforementioned validity and reliability of the survey instrument helps to ensure the data collected and analyzed is accurate.

As stated in chapter four, the researcher used the three components: instructional strategies, student engagement, and classroom management produced in a forced factor analysis. Initially, when a principal components analysis was done, only one factor was produced. Recall that the researcher adapted the TSES in the following way: the word, “ELLs” will be placed before the word, “students” in questions 2,3,4,5,7,8, and 10. In questions 1,6,9,11 & 12 the words, “ELL students” were placed in the appropriate places to make the questions particular to that group of students. It is quite possible that these alterations caused the participants to interpret the

questions differently; there was a "difficulty" element added as the scale was no longer reflective of non-ELL students. Participants are not responding to the adapted version the same way they would respond to the original version. A study done by Karen Ross in 2014 compared mathematics teacher sense self-efficacy regarding non-ELL students and ELL students via the TSES and a modified version of the TSES. "Wording of the first measure of the instrument (TSES) was modified with *non*-ELL *student* in place of *student*. In the second measure (modified TSES), *student* was changed to *ELL student*" (Ross, 2014, p. 90). Ross (2014) indicated that her modified version factored into the same three categories as the original TSES. Since the researcher was able to force factor and produce the three constructs needed to study, data analysis was not affected, but this should be noted for future studies if this adapted version of the TSES is used. A possible fix to this would be to replicate Ross's (2014) study and have participants answer one survey regarding general education students and one survey regarding ELL students.

Future Studies

There are several different avenues that can be taken for future studies on this topic. This study was completed utilizing preservice teachers at a private educational institution in the state of New York. New York has many other preservice teacher programs (state universities and private) that can and should be evaluated in a similar manner. This type of study would produce a larger sample size and it would be beneficial for the educational leaders at these institutions to understand how their secondary preservice teachers are feeling in terms of teaching ELL students. Findings should encourage leaders to examine their preservice programs and potentially restructure them to meet the needs of the preservice teachers they are preparing. Additionally, teacher development could be structured in a more detailed manner based on findings from this

study and future studies. Areas that generate a lower sense of self-efficacy could be the focus of ELL pedagogical courses. A greater focus on self-efficacy in future studies would be valuable. Measuring how invested participants are in acquiring ELL pedagogical knowledge and then seeing how their efficacy scores compare to that would be another area within this topic to examine. A more thorough understanding of the preservice teachers' beliefs regarding ELLs would also help to enhance teacher development. Making this study more of a cross-case comparison study would be interesting, as researchers would be able to see how institutions seem to be preparing their preservice teachers and if these preservice teachers feel confident and effective to teach ELL students. To take this cross-case comparison a step further, a qualitative component could be added to make it into a mixed-methods study. It would be beneficial and valuable to hear from secondary preservice teachers regarding their perceptions of preservice programs and how effective they feel, should they have to teach ELL students in the future. These added data would allow researchers to determine the continuity in terms of what preservice programs in New York are offering their students. New York is one of the states in the country with a larger number of ELL students, and a state that is expected to see an increase in the number of ELL students in schools by the year 2024 (Saunders, 2017). Additionally, expanding the setting of this study to the entire state of New York may generate different results from this study as the various areas house different populations of both students and teachers. Findings from the literature review revealed that there is little to no continuity in terms of preservice program structure in the country. It is safe to say that this same discontinuity exists in New York state. The researcher observed some of this continuity through quantitative and qualitative pilot studies. Based on what the researcher has observed and learned thus far, things

need to change. It is in the best interest of the teachers becoming certified in the state of New York to be taught in a way that prepares them to teach ELL students confidently and effectively.

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Appendices

Appendix A - Survey Instrument

Hello, survey participant! You have been invited to participate in a research project. I am a doctoral candidate in the Department of Educational Leadership at Hofstra University. As part of a quantitative research course, I am researching teacher sense of self efficacy regarding the instruction of ELL students in mainstream classrooms. This study will allow me to better understand how factors like preservice teaching programs can impact teacher self efficacy in areas such as engagement, instruction, and classroom management. The survey consists of eight background questions, a program evaluation block consisting of five Likert scale statements, and a sense of self-efficacy block consisting twelve Likert scale statements. The Likert scale statements in the program evaluation block will require you to provide a rating which reflects how much you agree or disagree with the statements. The Likert scale statements will require you to provide a rating which reflects your opinion regarding "how much you feel you could do" to address the difficulties that may be faced by teachers in their school activities. I appreciate your input! Completing all items on this survey will take a couple of minutes. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. Please be assured that your survey responses are completely confidential and anonymous. Data will be collected using the Hofstra University Qualtrics System and stored on a password-protected server. If you would like to contact the researcher in the study to discuss this research, please email ccarno1@pride.hofstra.edu.

Consent Statement: By clicking, the "I consent" in the box below, you are indicating your consent to voluntarily participate in the entire survey, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

- ○ I consent to begin the survey
- ○ I do not consent; I do not wish to participate

→

Under what age range do you fall?

- ○ 18-25
- ○ 26-33
- ○ 34-41
- ○ 42-49
- ○ 50-57

Which of the following best describes your current standing in your preservice teaching program/educational career?

- ○ Third-year undergraduate student
- ○ Fourth-year undergraduate student
- ○ First-year graduate student
- ○ Second-year graduate student
- ○ First-year teacher

Which of the following best describes your area of certification?

- ○ Mathematics
- ○ Science
- ○ English
- ○ Social Studies

Does/Did your preservice program offers/offered courses pertaining to the instruction of ELL (English Language Learner) students?

- ○ Yes, the program does/did offer courses
- ○ No, the program does/did not offer courses
- ○ I am unsure if the program offers/offered courses

Is English your first language?

- ○ Yes
- ○ No

Have you taken a course pertaining to the instruction of ELL (English Language Learner) students?

- ○ Yes
- ○ No

→

Was this class mandatory?

- ○ Yes
- ○ No
- ○ Unsure

Would you enroll in a course pertaining to the instruction of ELL (English Language Learner) students, even if it is not mandatory?

- ○ Yes
- ○ No

→

Please indicate your opinion with regards to how much you agree or disagree with each of the the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Before enrolling in my preservice teaching program, I already had prior knowledge of ELL instruction	○	○	○	○
My preservice teaching program has offered an adequate number of courses to prepare me to teach ELL students in the classroom	○	○	○	○
At this point in my preservice teaching program, I feel that my knowledge of instructing ELL students has increased greatly	○	○	○	○
At this point in my preservice teaching program, I feel that I would be an effective teacher to ELL students	○	○	○	○
At this point in my preservice teaching program, my attitude and perceptions of ELL students have changed from negative to positive	○	○	○	○

→

Please indicate your opinion with regards to how much you feel you could can do about each of the statements below. Please respond to all prompts in terms of ELL student education only.

	Nothing (1)	(2)	Very little (3)	(4)	Some influence (5)	(6)	Quite a bit (7)	(8)	A great deal (9)
How much do you feel you could do to control disruptive behavior of ELL students in the classroom?	○	○	○	○	○	○	○	○	○
How much do you feel you could do to motivate ELL students who show low interest in school work?	○	○	○	○	○	○	○	○	○
How much do you feel you could do to get ELL students to believe they can do well in school work?	○	○	○	○	○	○	○	○	○
How much do you feel you could do to help your ELL students value learning?	○	○	○	○	○	○	○	○	○
To what extent do you feel you could craft good questions for your ELL students?	○	○	○	○	○	○	○	○	○
How much do you feel you could do to get ELL children to follow classroom rules?	○	○	○	○	○	○	○	○	○
How much do you feel you could do to calm an ELL student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
How well do you feel you could establish a classroom management system with each group of ELL students?	○	○	○	○	○	○	○	○	○
How much of a variety of assessment strategies do you feel you could use for ELL students?	○	○	○	○	○	○	○	○	○
To what extent do you feel you could provide an alternative explanation or example when ELL students are confused?	○	○	○	○	○	○	○	○	○
How much do you feel you could you assist families of ELL students in helping their children do well in school?	○	○	○	○	○	○	○	○	○
How well do you feel you could implement alternative strategies for ELL students in your classroom?	○	○	○	○	○	○	○	○	○

→

Appendix B - TSES (Tschannen-Moran & Woolfolk Hoy, 2001)

Teacher Beliefs

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

	None at all		Very Little		Some Degree		Quite A Bit		A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. To what extent can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How well can you implement alternative teaching strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix C - Letter of Permission from Survey Developer

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

August 22, 2023

Christina Carnovale,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Woolfolk Hoy, A., in your research.

You can find a copy of the measure and scoring directions on my web site at https://mxtsch.pages.wm.edu/.

Please use the following as the proper citation:

> Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

All the best,

Megan Tschannen-Moran
William & Mary School of Education

Appendix D - Invite to Participate in Survey

Hello there,

My name is Christina Carnovale. I am a Doctoral Candidate in the Educational Policy and Leadership Program at Hofstra University. I am inviting you to participate in a survey for a research study being done at Hofstra University. I am researching preservice content area teacher's sense of self-efficacy regarding ELL students in mainstream classrooms.

Completing all items on this survey will only take a couple of minutes and all survey responses are completely confidential and anonymous. Please note that this survey is intended for educators who are not certified in TESOL/ELL. Also note, that survey responses must refer to self-efficacy toward ELL students. The survey will be open from October 5, 2023, until November 22, 2023. Thank you very much. I appreciate your time.

The survey link is below:

https://hofstra.co1.qualtrics.com/jfe/form/SV_bqI3U3AwKaUoq7I

Sincerely,
Christina Carnovale

Appendix E - Consent Statement

Consent Statement: By clicking the "I consent" in the box below, you are indicating your consent to voluntarily participate in the entire survey, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.