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Middle School Subject Area Teachers' Self-Efficacy with English Language Learners: A Mixed Methods Study

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MIDDLE SCHOOL SUBJECT AREA TEACHERS' SELF-EFFICACY WITH
ENGLISH LANGUAGE LEARNERS: A MIXED METHODS STUDY

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Curriculum and Instruction

by
Tracy Dawn Butler
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Accepted by:
Dr. Lienne Medford, Committee Chair
Dr. Pamela Dunston
Dr. Bonnie Holaday
Dr. Temi Biderjano

ABSTRACT

The population of English language learners (ELLs) within the US has been steadily increasing over the past 20 years, thereby escalating the need for teachers to be knowledgeable in how to teach these students. However, research indicates that many teachers are not receiving adequate English as a Second Language (ESL) professional development. Lack of professional development in ESL strategies may adversely affect teachers' self-efficacy because they are unfamiliar with methods to assist their ELL students in learning academic content. The purpose of this research study was to determine if particular subject areas taught by middle school teachers engender a higher level of teaching self-efficacy.

An explanatory sequential mixed methods design was used for this study. The quantitative data were collected using a modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* survey with middle school subject area teachers. The survey focused on self-efficacy with instructional practices for ELLs and ELL student engagement, and provided an opportunity for participants to volunteer to be interviewed for the qualitative portion of the study. Interviews allowed for more detailed information to be gathered about participants' self-efficacy in teaching ELLs.

The results of the data analysis of the survey showed statistically significant results for instructional practices. Upon closer analysis, social studies and English language arts (ELA) teachers were the only subject areas with statistically significant results for instructional practices. Student engagement was not found to have any statistically significant results.

Findings from the qualitative phase of the study showed that participants already used many different strategies for discussion, differentiation of instruction, and instructional strategies, most of which they gained through years of teaching experience. School support in the form of ESL professional development was unavailable at most of the schools.

DEDICATION

I dedicate this dissertation to my husband and two boys. I want to thank my husband for supporting me and being my sounding board throughout my PhD program. The love and support from my boys and my husband helped me to continue to work my hardest and complete my PhD. I hope that my boys see that through hard work, determination, and a belief in themselves, they can achieve their dreams and goals too.

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TABLE OF CONTENTS

	Page
TITLE PAGE	i
ABSTRACT	ii
DEDICATION	iv
ACKNOWLEDGMENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	viii
CHAPTER	
I. INTRODUCTION TO THE STUDY	1
English Language Learner Population Growth.....	3
Theoretical Framework	6
Purpose of the Study	7
Research Questions.....	8
Limitations, Assumptions, and Design Controls	9
Research Design Overview.....	12
Key Terms Defined.....	12
Summary.....	13
II. REVIEW OF LITERATURE	14
Change and Challenge	15
The Importance of Self-Efficacy	16
English Language Learners.....	26
Preparedness Brings Proficiency	31
Summary.....	37
III. METHODOLOGY	38
Research Design.....	38
Phase 1: Quantitative Methodology.....	41
Phase 2: Qualitative Methodology.....	53
Validity and Reliability.....	61

Table of Contents (Continued)

	Page
Summary	62
IV. RESULTS OF DATA ANALYSIS	63
Quantitative Results	63
Qualitative Results	74
Summary	85
V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH.....	87
Summary	87
Conclusions.....	92
Implications.....	97
Future Research	97
APPENDICES	100
A: Clemson IRB Approval.....	101
B: Informed Consent Form.....	102
C: Researcher-Developed Teacher Background Questionnaire	104
D: Researcher Modified Teacher Self-Efficacy Scale	106
E: Interview Questions.....	109
REFERENCES	110

LIST OF TABLES

Table	Page
3.1 Phase 1: Key Demographic Characteristics of Subject Area Participants	43
3.2 Phase 2: Key Demographic Characteristics of Qualitative Participants	56
4.1 Factor Loadings of Items on the Teachers' Sense of Efficacy Scale	66
4.2 Descriptive Statistics for Efficacy for Student Engagement by Subject Area	68
4.3 ANOVA Results for Student Engagement	69
4.4 Descriptive Statistics for Efficacy for Instructional Practices by Subject Area	71
4.5 ANOVA Results for Instructional Practices	72
4.6 Qualitative Participant Mean Scores from the <i>TSES</i> Survey	79

LIST OF FIGURES

Figure	Page
3.1 Explanatory Sequential Mixed Methods Model	41
4.1 Scree Plot	65
4.2 Difference in Means of the Four Subject Areas for Instructional Practices	73

CHAPTER ONE

INTRODUCTION TO THE STUDY

The United States is a nation of immigrants, but only in the past 40 years have schools begun to create programs specifically designed to accommodate and benefit English language learners (ELLs).

The well-publicized US Supreme Court case of *Lau v. Nichols* (1974) exposed to the public the unequal treatment and inadequate education, as well as the lack of resources made available for English language learner (ELL) students in public schools. The case arose in California where 1,800 Chinese children filed a class-action lawsuit due to the inequality of educational opportunities made available to them in San Francisco schools (Ariza, 2010). The court determined that both states and local school districts have the legal duty and the social responsibility to offer appropriate services to ELL students (Hakuta, Butler, & Witt, 2000).

The court reasoned that:

Basic English skills are at the very core of what these public schools teach.

Imposition of a requirement that, before a child can effectively participate in the educational program, he must already have acquired those basic skills is to make a mockery of public education...those who do not understand English are certain to find their classroom experiences wholly incomprehensible and in no way meaningful.

In the Supreme Court's finding that the San Francisco schools' lack of ELL student instruction constituted impermissible discrimination, the court quoted existing US

governmental regulations which require any system employed by a school district that accepts Federal funds "...to deal with the special language skill needs of national origin-minority group children must be designed to meet such language skill needs as soon as possible and must not operate as an educational dead-end or permanent track (emphasis added)" (35 Fed. Reg. 11595).

In response to that case, Federal law and No Child Left Behind (NCLB) changed education and standards as well as assessment for ELLs, creating more pressure on teachers to raise the standardized test scores of not only ELLs but all students. These changes in the expectations for teachers have not created more or appreciably better professional development opportunities or other forms of teacher education for learning how to effectively teach ELLs. There continues to be a wide gap between the rise in the population of ELLs in our schools, and the university education given to subject area teachers in how to teach ELL students (de Jong, 2013). As the literature will show, a relationship exists between teachers' self-efficacy and the academic performance of their students (Berman & McLaughlin, 1978). Research also shows that teachers are receiving limited professional development on teaching ELLs (Echevarria, Vogt, & Short, 2014), which could have a detrimental effect on the self-efficacy of teachers, and particularly middle school teachers. This study explores the level of self-efficacy that middle school subject area teachers experience while teaching ELLs.

Terminology and Definitions

There are many acronyms that are used to describe people who are learning English in addition to another language. An example of these commonly used acronyms

is found on many State Department of Education websites in the US. A commonly used acronym by both educators and individuals learning English is LEP (Limited English Proficient). For the purposes of this research, I will not use LEP. I will instead use English language learners (ELLs) because the acronym better encompasses the population of students learning English as another language, and is more commonly used in current literature on the subject.

English Language Learner Population Growth

According to US Homeland Security (2013), in 1820 there were 8,385 immigrants who obtained lawful permanent residence in the United States, while in 2013, there were 990,553. These numbers do not include illegal immigrants, whose inclusion substantially increases the overall number of immigrants (including their children) entering the US every year. In 2014 alone, 57,496 unaccompanied minors entered into the US (Homeland Security, 2013). The ever-increasing numbers of child immigrants entering the US in recent years has created an influx of non-English speaking students into elementary, middle, and high schools throughout the US (Clair, 1995; de Jong & Harper, 2005; McIntyre, Kyle, Chen, Muñoz, & Beldon, 2010), with an estimated 4.5 million students, or 9.3 % of the school population in the US, being ELLs (Kena, Hussar, McFarland, de Brey, Musu-Gillette, Wang et al., 2016).

The influx of ELLs entering U.S. schools has affected nearly every state in the Union. In South Carolina, where this study was conducted, ELLs in schools increased from 7,467 (1.1% of the population) during the 2002/2003 school year to 43,080 (5.8%) in the 2013/2014 school year (NCELA, 2014). These numbers include only identified

ELL students in English as a Second Language (ESL) programs. This number is much larger when former ELL students that tested out of the ESL program, but still struggle with academics because of language deficiencies are included (Echevarria, Vogt, & Short, 2014). This change in the population demographics of schools points to the great and inescapable need for all teachers to be prepared to work with ELLs (Bunch, 2013; Kibler & Roman, 2013); in order to provide a useful education to this growing population in our society, to comply with the Supreme Court's ruling, and to avoid involvement in and responsibility for an identified form of discrimination.

The English language has become the language of business, science, technology, and publications around the world (Hilgendorf, 2005). In the US, English is the language of power (Nieto, 2010) and cultural capital. English language learners have become a large and diverse group of students that can be found in schools throughout the United States. Therefore, it is important that ELLs as well as all children in the US are given the opportunity to learn proficiency in the English language while in school.

Globalization has created an economic and cultural intertwining of nations throughout the world, and is defined by its characteristics: “the increasing free movement of people, goods and services, information, and money across national borders and physical distances” (Zhao, 2010, p. 423). The ever increasing number of immigrants entering the US is largely influenced by globalization (Suárez-Orozco, 2001). Due to the current increase in globalization, a need has been created for a new model for teaching and learning (Suárez-Orozco & Qin-Hilliard, 2004). In order to be competitive internationally, the U.S. needs to prepare students for a changing world in which they

will be considered global citizens, and will be influenced by other cultures, economies, and languages (Zhao, 2010). It is the responsibility of every modern nation to "...develop the talents of its entire population if it is to be economically vigorous and socially cohesive" (Russell, Carnegie Council on Adolescent Development, & United States of America, 1996, p. 75). Globalization has raised awareness of the need for teacher positions such as English as a Second Language (ESL) because students from all over the world continue to enter US schools. However, it is not enough to have only ESL teachers. Instead, every teacher must have the skills to assist ELL students in learning.

After researching universities in South Carolina, I discovered that there are no Teaching English Speakers of Other Languages (TESOL) degrees for teachers at the undergraduate level. However, there are add-on TESOL certificates for undergraduates at Clemson University, Furman University, Coastal Carolina University, Columbia International University, College of Charleston, and the University of South Carolina. There is a Master of Arts in TESOL program available at Furman University, but no other South Carolina universities. This lack of availability of TESOL degree programs could make the process of instructing teachers in strategies that would be helpful to both themselves and their ELLs difficult. Furthermore, South Carolina does not have policies in place that mandate training of mainstream teachers to work with ELL students. This situation is likely to have a detrimental effect on the self-efficacy of teachers in South Carolina in their teaching of ELLs.

Bandura (1977) states that "an efficacy expectation is the conviction that one can successfully execute the behavior required to produce the [desired] outcomes" (p. 193).

Many middle school teachers don't have a high sense of self-efficacy and they feel unprepared to teach ELLs (Bunch, 2013). They lack the educational background and experience in working with ELLs and are therefore unsure of teaching strategies that would be helpful to ELLs in the learning process (Boyle, Golden, Le Floch, O'Day, Harris, & Wissel, 2014). Consequently, more research needs to be conducted to find ways to develop efficient programs to help teachers increase their efficacious behavior and feelings while teaching ELL students.

Theoretical Framework

Middle school teacher self-efficacy and English language learners are the main components of this study. Bandura's theory of self-efficacy supports the premise for this study. Bandura (1997) defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of actions required to produce given attainments" (p. 3). According to Bandura (1986) there are four principal sources of self-efficacy: "performance attainments; vicarious experiences of observing the performances of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological states from which people partly judge their capableness, strength, and vulnerability to dysfunction" (p. 399). Bandura (2000) believes that if people do not have confidence in their actions, they will not generate their desired effects, and they will be reluctant to act. Hoy and Spero (2005) found that "teachers' efficacy beliefs appear to affect the effort which teachers invest in teaching, their level of aspiration, and the goals they set" (p. 345). The beliefs that teachers hold about their skill set and ability to help their students achieve, affects their sense of efficacy (Saklofske,

Michayluk, & Randhawa, 1988). Ashton and Webb (1986) hypothesize that there is a reciprocal relationship between students and teachers such that when students do well in school, the self-efficacy of teachers' increases. Therefore, it's important that teachers feel a high sense of self-efficacy when teaching ELLs in order to help both themselves and their ELL students to be successful. "...Research shows that people who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious" (Bandura, 1986, p. 395).

Purpose of the Study

The purpose of this study was to determine if particular subject areas engender a higher level of ELL teaching self-efficacy for middle school teachers. The problem addressed is the limited research available on middle school subject area teachers and self-efficacy as well as the level of self-efficacy that middle school subject area teachers have experienced when working with ELLs.

The importance of this type of research can be found in classrooms across the US. As the population of ELLs increases in schools throughout the US, the need for qualified teachers also increases. However, it is not enough to have qualified English as a Second Language (ESL) teachers, it is also incredibly important that subject area teachers are capable of teaching ELLs successfully (Bunch, 2013; Loucks-Horsley, Hewson, Love, & Stiles, 1998). In South Carolina public schools, and in many other states, most ELL students spend the majority of their school day with subject area teachers (Echevarria, Short, & Powers, 2006), and only meet with the ESL teacher during specified school periods. Therefore, it is important that they have teachers who understand their special

situation, and are able to help them to adapt and learn in their new language in the context of learning the new subject matter. Quality teachers, properly equipped, are needed to improve the overall academic achievement of ELL students.

The problems facing middle school teachers in teaching ELL students are different than that of elementary school teachers for several reasons. Firstly, learning a second language at a younger age comes more easily to students because they are still in the process of mastering their first language. Secondly, the level of difficulty of the content area subject matter is much higher, especially so when the student is already struggling with the new language in which the subject is being taught. And thirdly, middle school is also the time of life when students are dealing with their age-related physiological changes, which are typically already adversely affecting their abilities to focus and pay attention.

This study examines whether there is a relationship between self-reported self-efficacy of subject area middle school teachers who teach ELLs and the subject area taught. Due to the limited number of studies in the field on the self-efficacy of middle school subject area teachers who teach ELLs, this study could add greatly to the research available in the field.

Research Questions

- 1) Does the factor structure of the modified scale reflect the original factor structure of the *TSES* survey?
- 2) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ELL student engagement, as measured

by the modified version of Tschannen-Moran & Hoy's (2001) *Teachers' Sense of Efficacy Scale*?

- 3) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ESL instructional practices, as measured by the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*?
- 4) What are middle school teachers' perceptions of ELL student engagement?
- 5) What instructional strategies do middle school subject area teachers currently utilize to help them to work with ELLs?

A Likert scale survey was used to measure the self-efficacy of middle school subject area teachers when teaching ELLs. However, open-ended questions were also created in order to give a more informed picture of how middle school teachers view their self-efficacy when teaching ELLs. Follow-up interviews of volunteers were completed to allow a more in-depth analysis of middle school teachers' views.

Limitations, Assumptions, and Design Controls

Some limitations of my study include the fact that survey results were dependent on participant responses from the survey as well as volunteers allowing me to interview them for my study. Another limitation was my limited expertise as a researcher. This was my first time interviewing teachers and they may not have been comfortable with my questions. I may also have received inaccurate information. Furthermore, my results were not generalizable to all middle school subject area teachers in the US because there was a specific focus on only South Carolina subject area middle school teachers. There was also

a small sample size that would not allow for generalization to all middle school teachers in South Carolina. The data collected relied on self-reporting by participants on the survey with only their perceptions of their beliefs about their own self-efficacy with teaching ELLs. No other sources were used to corroborate their views about themselves because the survey was anonymous.

The qualitative part of the study was limited by the number of participants. Also, a limited number of teachers of color participated in the study, which could have affected the results of the study. Only volunteers that took the survey were interviewed, therefore, limiting the pool of participants and their views.

My assumptions about my research are based on my experience as a middle-class, White female with a background in teaching middle school, ESL, and Spanish. I fit the prototypical stereotype of teachers within the US due to my economic status and race. However, my education includes a B.A. in Spanish and an M.A. in TESOL, and my background experiences may be more diverse than the typical teacher that is portrayed in the literature.

I taught middle school Spanish for six years, elementary school for one year, and adult ELLs for over three years. I was a teaching assistant at my university for the undergraduate course *Teaching Reading & Writing K-5 to English Language Learners*. I have co-taught a graduate level middle school curriculum course twice. I also taught reading, writing, and grammar courses to adults in an intensive English program for international students at a university in the southeast. Furthermore, I was a guest lecturer for three different ESL courses at a different university in the southeast. I've also

volunteered for over 15 years as an ESL, reading, writing, and math tutor in K-12 classrooms at different public schools in Colorado, Minnesota, and South Carolina. I've traveled throughout the US as well as Europe, Mexico, Costa Rica, and Canada. My teaching, volunteering, and travel have all influenced my opinions, beliefs, and research. An assumption that I've made is that my background experiences have been different from my participants, and this has had an impact on how I conducted and viewed my research. Another assumption that I made based on my experiences talking to middle school teachers prior to my study was that middle school teachers in South Carolina were receiving little to no ESL professional development, and that this would have a negative impact on their self-efficacy when teaching ELLs.

In order to have control over my design, I used Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* because it is an established instrument that was validated by the authors and found to be a reliable instrument. A pilot study was conducted and a factor analysis completed on my modified *TSES* instrument to determine validity and reliability. Qualtrics was used to collect survey data and control which participants took the survey. Control was created in the first question of the survey, which asked: "*Do you teach at a middle school in South Carolina?*" If participants answered "no" then they were not allowed to continue with the survey. Participants were also automatically divided by subject area according to their responses on the survey to make analysis more efficient.

Inter-subject equalization was attempted by offering an opportunity for participants to win gift cards. By offering an incentive to participate, I hoped to

encourage a diverse group of subject area middle school teachers to take my survey and then participate in an interview.

Research Design Overview

The use of mixed methods research has been shown to create a stronger study because it includes both qualitative and quantitative research (Creswell & Clark, 2007). The research questions that I created for my study reflected both quantitative and qualitative parts. Based on my choice of research questions, I determined that the use of an exploratory mixed methods design would best fit my research study because it encompasses both quantitative and qualitative design features. A QUAN-qual model was used. The qualitative part of the design was influenced by the results of the quantitative phase of the study creating a more informed picture of the challenges that middle school teachers face with their self-efficacy when teaching ELLs.

Data collected for the study include survey responses for demographic information, Likert scale self-efficacy measures, and open-ended questions. Responses were analyzed using the Statistical Package of the Social Sciences (SPSS). Interviews of volunteers from the survey were also conducted, audio-taped, and then transcribed for analysis. A qualitative content analysis approach (Guba & Lincoln, 1981; Lincoln & Guba, 1985) was used to analyze interviews. Four themes were created to assist in analyzing the data. Interviews were placed in one of the four themes and then coded.

Key Terms Defined

English language learners (ELLs): Students for whom English is not their primary language, and need academic assistance with learning English.

English as a Second Language (ESL) programs: The name of English programs for ELLs at many schools throughout the US.

Teachers of English Speakers of Other Languages (TESOL): Teachers with special certification and degrees/endorsements for teaching ELL students.

Teacher self-efficacy: The belief that a teacher has in herself/himself to be able to teach subject matter effectively.

TSES: Teachers' Sense of Efficacy Scale

PELS: Primary English Language Speaking Students

Summary

This chapter has presented the challenge, rightly imposed upon our educational system by the Supreme Court, to provide equal opportunity for educational success to all students, including ELLs.

This chapter included an overview of the research study of middle school teacher self-efficacy when teaching ELLs. It also presented an overview of the theoretical framework based on Bandura's theory of self-efficacy, and provided the research questions that guided the study as well as a brief description of the research design and a definition of terms.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this study was to determine whether the level of self-efficacy of licensed, middle school subject area teachers who teach English language learners (ELLs) in South Carolina differed, depending upon the subject area taught (English, math, science, or social studies).

A literature review was completed in order to determine the literature already available in the field on ELLs in the United States with a specific focus on South Carolina; the self-efficacy of subject area middle school teachers, and teacher self-efficacy when teaching ELLs. This review was also completed to help me interpret the findings of my own research.

A broad search of the literature included the use of the Clemson University library electronic databases: Education Research Complete, Academic Search Complete, OneSearch, ERIC, Education Full Text, PsychINFO, Social Sciences Full Text, Teacher Reference Center, Humanities Full Text, and Google Scholar. The following key words were used in the database searches: teacher self-efficacy, adolescent English language learners, teacher confidence, English learners, middle school students, adolescents, middle school teachers, Bandura, Bandura's self-efficacy theory, Bandura's social cognitive theory, social cognitive theory, social cognitive theory AND teachers, self-efficacy AND teachers, self-efficacy AND teachers AND English language learners, teacher self-efficacy AND middle school students, teacher self-efficacy AND middle school teachers, teacher self-efficacy AND adolescents, teacher self-efficacy AND

adolescent English language learners, teacher confidence AND English language learners. The following search criteria for articles were utilized: articles written and published in English only; articles published in 1965 or later; scholarly and peer-reviewed articles and journals; and additional resources, including internet websites. Relevant articles were mined from those found during the literature review.

Change and Challenge

Although student diversity in schools has increased by record numbers, teachers continue to be mainly female, European American, monolingual, and middle class with teachers of color being in the minority (Darling-Hammond & Bransford, 2005; Rodríguez & Kitchen, 2005). Not only do the language, culture, and race of most teachers differ from their students, but their experiences and biographies are vastly different from them (Darling-Hammond & Bransford, 2005).

In order to improve the relatability of middle class, White female teachers to their ELL students, there is a need for them to seek out the backgrounds of their students and use that information to make informed instructional decisions in their teaching methods (Gutierrez & Rogoff, 2003).

Darling-Hammond and Bransford (2005) state “to develop inclusive classrooms teachers need to be able to observe, monitor and assess children to gain accurate feedback about their students’ learning and development” (p. 262). Teachers need to plan different ways to connect the subject matter that they plan to teach to the students they are teaching (Darling-Hammond & Bransford, 2005). This will allow all students access to the subject matter.

The Importance of Self-Efficacy

People are influenced by their previous experiences both successful and failed, as well as the messages of other people and their successes and failures (Ormrod, 1999), which all contribute to self-efficacy development. Self-efficacy is further differentiated from other concepts such as self-esteem or confidence by its task-specific focus in particular situations (Bray-Clark & Bates, 2003; Ormrod, 1999; Tschannen-Moran, Hoy, & Hoy, 1998).

Rotter's (1966) concept of "locus of control" has been cited extensively throughout the literature as one of the seminal works of self-efficacy research. Rotter developed a scale to determine peoples tendencies toward internal control (a situation or event was within their control) versus external control (they had no control over what would happen in a situation or event), and how that belief would influence their behavior. Since Rotter's research was completed, many studies have followed, with research expanding the literature on the area of self-efficacy.

One such researcher is Albert Bandura. He believes that both outcome expectations and efficacy expectations play a key role in behavior (Guskey & Passaro, 1994). According to Bandura (1997), people who believe they don't have the ability to generate results will not try to make things happen for themselves. Self-efficacy theory recognizes the diverse abilities of humans, and "...treats the efficacy belief system not as an omnibus trait but as a differentiated set of self-beliefs linked to distinct realms of functioning" (Bandura, 1997, p. 36). Self-efficacy theory doesn't measure the skills one already possesses, but instead measures one's beliefs about what one can accomplish in

different conditions with whatever skills one has at their disposal (Bandura, 1997). Experiences with success do not automatically create expectations of personal efficacy because people create ways of protecting themselves; however, when their experiences challenge their established beliefs about their self-efficacy, they still may not change their beliefs if they are able to disregard the significance of the experience (Bandura, 1977).

Self-efficacy is more likely to have a positive effect on performances that involve personal skill instead of luck or other supports (Bandura, 1977). On the other hand, with failures there can be an expectation that self-efficacy will decrease if it is attributed to skill rather than to rare situational circumstances (Bandura, 1977). Different situations may require better skills and more demanding performances, and therefore may entail a greater chance of negative results than other situations (Bandura, 1977). Whether a person views themselves as efficacious or inefficacious will affect their level of effort, their attitude, and whether they ascribe failure to an inadequate ability level (Bandura, 1986). Each person has a different reaction to situations. For example, some people have a fear of public speaking, which would carry a higher risk for them of a negative consequence, while other people have different fears to overcome to increase their feelings of self-efficacy.

According to Bandura (1977), individual differences that people possess, such as skills and motivation can play a key role in their performance. When people believe they are inefficacious, intimidating situations will cause them anxiety and actually increase their risk of failure (Bandura, 1986).

However, when people perceive themselves as efficacious, they are generally able to handle potential threats with a positive attitude, and are not fearful or trying to avoid dealing with threats (Bandura, 1986). Many people who have a high level of self-efficacy also develop resilient self-efficacy in which they learn to persevere and give sustained effort when confronted with difficult tasks (Bandura, 1989). People change “judgments of their efficacy on the basis of direct mastery experiences; social comparisons through vicarious influences; inferences from bodily states; and varied forms of social persuasion, including bogus feedback of attainment, arbitrary attributional interpretations, and monetary lures” (Bandura, 1986, p. 367). Self-efficacy can also be enhanced through the encouragement of others, observing the success of others, and one's own successes (Ormrod, 1999).

There are four principal sources of self-knowledge about the efficacy that a person possesses: (a) performance attainments; (b) vicarious experiences through observation of others; (c) verbal persuasion and other social influences; and (d) physiological states (Bandura, 1986). In other words, people can learn through not only personal experiences, but also vicariously, by watching other people and their behavior, and by learning from the consequences of that observed behavior (Bandura, 1986). Vicarious experiences that involve the observations of others are important in increasing self-efficacy (Bandura, 1986, 1997; Ormrod, 1999).

There are also extremes in efficacy beliefs: those that have a high level of self-efficacy and overestimate what they are capable of doing, sometimes causing themselves unneeded disappointment and other problems; while those who have a lower sense of

self-efficacy may underestimate what they're capable of doing, thus limiting themselves and the activities they are willing to try (Bandura, 1986, Ormrod, 1999).

Perceived self-efficacy is a belief in yourself and in what you can do with the skills you possess in the different sets of conditions in which you may find yourself (Bandura, 1997). Bandura (1986) found that social persuasion was one way of increasing a person's judgments of self-efficacy. Bandura (1978) also discovered that self-efficacy and behavior have a shared relationship: self-efficacy beliefs are correlated with the task or situation; they are an "active and learned system of beliefs held in context" (Delinger, Bobbett, Olivier & Ellett, 2008, p. 754) that produce behavior.

Teacher Self-Efficacy

Researchers believe Bandura is a pioneer in the creation of a theoretical framework for teacher self-efficacy (Coladarci, 1992). The focus of this research study is on middle school subject area teacher self-efficacy; therefore, Bandura's theoretical framework fits well with this study.

There are two types of efficacy with regards to teachers, teacher efficacy and teacher self-efficacy. Both types of efficacy began to appear in education research during the same time period (Dellinger et al., 2008). However, teacher efficacy puts the focus on affecting student performance, and is defined as the belief that teachers can have an impact on student learning (Guskey & Passaro, 1994). Teacher self-efficacy is discussed by Hines (2008), and he writes about how Bandura considers the judgement of the ability of teachers to have their students achieve at the level they desire as the definition of teacher self-efficacy. Bandura believes teacher self-efficacy is influenced by mastery

experiences, vicarious experiences, and social persuasion. The difference between the two types of efficacy can be made more explicit with an example: the belief that generally teachers have the capacity for a certain type of instruction. However, if individual teachers don't possess that same belief in themselves, then they lack teacher self-efficacy, and instead have only general teacher efficacy (Coladarci, 1992).

According to Gibson and Dembo (1984), Bandura's construct of teacher self-efficacy when applied as an "outcome expectancy would essentially reflect the degree to which students can be taught given their family background, socioeconomic status, and school conditions" (p. 574). A teacher's sense of efficacy can have a profound effect on the motivation and achievement of her or his students (Caprara, Barbaranelli, Steca, & Malone, 2006; Chacón, 2005; Chong, Klassen, Huan, Wong, & Kates, 2010; Hoy & Spero, 2005). The behavior of teachers' and their pedagogical choices can also be affected by their sense of self-efficacy (Chacón, 2005). In Hines (2008) study of 7th-grade math students, he found that teacher self-efficacy had the highest level of influence on the achievement differences of student participants. Students who had teachers with high levels of self-efficacy achieved higher test scores than those with low self-efficacy. Caprara et al. (2006) also found in their research on self-efficacy that teachers' levels of self-efficacy affected their students' motivation, achievement, and success at school.

In their seminal piece of research on reading achievement, Armor, Conry-Oseguera, Cox, King, McDonnell, Pascal, Pauly and Zelman (1976) found that students who had efficacious teachers experienced higher reading achievement. Ashton and Webb's (1986) study agreed with the findings of the RAND corporation studies by

Armor et al. (1976) and Berman and McLaughlin (1978) that a direct relationship exists between the achievement of students and the self-efficacy of their teachers. In the study by Ashton and Webb (1986), they found that teachers with a low sense of self-efficacy became frustrated and sometimes angry with low-performing students and did not show that they shared any of the responsibility for the academic failure of their students. However, teachers with a high sense-of-efficacy held the opposite view and believed that low-performing students could be successful, with their help.

A review of the literature by Jerald (2007), found that teacher self-efficacy played a large part in how teachers plan and organize, how willing they are to try new methods, how resilient they are when faced with adverse situations, what patience they exhibit when working with difficult students, and the frequency with which they refer students to be tested for special education services. Teachers with higher self-efficacy responded much more positively to these situations. Bandura (1997) found that “teachers who believe strongly in their instructional efficacy tend to rely on persuasory means rather than authoritarian control and to support development of their students’ intrinsic interest and academic self-directedness” (p. 241).

As research demonstrates, a causal relationship exists between teachers who feel inefficacious, and the effect that such a belief or feeling can have on their students’ academic achievement (Ashton & Webb, 1986). The influential effects “of the home, community, and culture assume an important role in life in classrooms, affecting both the teacher and students in subtle and complex ways” (Ashton & Webb, 1986, p. 12).

Differences in race, socioeconomic status, or culture between teacher and parents may also contribute to teachers' low self-efficacy where the teacher is unwilling to attempt an understanding of those differences (Ashton & Webb, 1986). Generally, teachers with a high sense of self-efficacy are more willing to try new teaching techniques and continue trying new strategies even when they are difficult (Bray-Clark & Bates, 2003).

Collier (2005) summarized Ashton (1984), and Ashton and Webb's (1986) findings on teachers' efficacy in her article. She wrote that efficacious teachers:

- (1) view the role of teacher as important and meaningful work;
- (2) set high expectations for student performance;
- (3) take personal responsibility for student learning, examine their own performance in light of student failure and develop improved instructional strategies to meet their students' needs;
- (4) engage in goal setting for themselves, the profession of teaching and their students;
- (5) exhibit confidence in their ability to affect student learning;
- (6) view themselves and their students as partners in the learning process;
- (7) expend greater effort and persist longer in assisting student learning (p. 352).

Bandura (1993) found that context itself can also play a particularly important role in self-efficacy because it is not a fixed state, but instead can change depending on the situation. Teachers may feel a high sense of self-efficacy when teaching one type of content while experiencing a lower sense of efficacy while teaching a different type of content. In Chacón's (2005) study on English as a Foreign Language (EFL) teachers' sense of self-efficacy while teaching in Venezuela, she found that the higher the teacher

believed her proficiency in English reading, listening, writing, and speaking, the higher her sense of self-efficacy.

However, the findings from Guskey and Passaro's (1994) study dispute Bandura's outcome and self-efficacy expectations. They found that while "Bandura's (1986) ideas about outcome and efficacy expectations may be helpful in interpreting causal attributions in many contexts, their direct extension to defining the dimensions of teacher efficacy appears inaccurate" (p. 640). They believe that Bandura's ideas could be applied to a more global view, but that it's inaccurate at a more individual teacher level (Guskey & Passaro, 1994).

Bandura's (1997) book on self-efficacy reviewed many different experimental studies of self-efficacy. He found that the results consistently showed that the level of motivation and performance is affected by efficacy beliefs; "they predict not only the behavioral changes accompanying different environmental influences but also differences in behavior between individuals receiving the same environmental influence, and even variation within the same individual in the tasks performed and those shunned or attempted but failed" (p. 61). If a person is lacking the subskills needed to practice personal agency, then the person will be unable to produce a novel performance and efficacy beliefs, and will be unable to raise and maintain motivation (Bandura, 1997). "Belief in one's learning efficacy activates and sustains the effort and thought needed for skill development. Conversely, self-inefficacious thinking retards development of the very subskills upon which more complex performances depend" (Bandura, 1997, p. 61). Bandura (1997) also believes that humans are multifaceted. Thus, explanations of

variance in human performance by self-efficacy that is perceived in a study should be cautiously interpreted.

Teacher Self-Efficacy Scales

Scales of self-efficacy measure what people think they can do in different circumstances (Bandura, 1986). Chan (2008) states that, because teachers have different levels of efficacy depending on the context, task, or situation, some researchers believe that specific scales of teacher efficacy should be created for different purposes of research.

According to Chesnut and Burley (2015), it is also important to understand exactly what a self-efficacy scale is measuring, and that the instrument measuring self-efficacy is as specific as possible so that it measures the particular outcome which the researcher wishes to achieve.

The RAND studies by Armor et al. (1976) and Berman and McLaughlin (1978) were two of the original studies on teacher self-efficacy, and they spurred an increase in the research on teacher self-efficacy. In 1984, Gibson and Dembo created a teacher efficacy scale to measure teacher self-efficacy. Problems with the instrument, however, were noted by other researchers. Tschannen-Moran and Hoy (2001) conducted their own research using Gibson and Dembo's (1984) instrument and they discovered problems. They found in a factor analysis that items were not loading correctly under the factors created by Gibson and Dembo. Although there were problems with the validity and reliability of Gibson and Dembo's (1984) scale, it helped to pave the way for other self-efficacy scales. Woolfolk and Hoy (1990) took a version of the Gibson and Dembo scale

using 16 of their own items, two RAND items, and two items concerning the adequacy of their teacher preparation program to create their own instrument (Denzine, Cooney, & McKenzie, 2005). In order to create a more valid and reliable teacher self-efficacy instrument, Woolfolk and Hoy continued to hone their instrument through multiple studies. Their first study instrument had 52 questions, and their second study had 32 questions for the instrument, and their third had 18 questions. Tschannen-Moran and Hoy (2001) eliminated questions from their instrument each time based on low factor loading. The final instrument consisted of 24 questions, and a shorter instrument with 12 questions was also developed. The authors recommend the 24 question instrument be used for surveying pre-service teachers due to a less distinct factor structure (Tschannen-Moran & Hoy, 2001). The final teacher self-efficacy instrument became known as Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale (TSES)*, which was adapted for my instrument. The instrument created by Tschannen-Moran and Hoy (2001) demonstrated its validity and reliability through their own research studies using the instrument in three different studies. The instrument was refined following factor analysis of the questions. A principal-axis factor analysis specifying one factor was conducted to gauge reliability of the instrument, and they found that the 24-item scale was 0.94 and the 12-item scale was 0.90. The validity of the instrument was measured by having participants take surveys using different instruments such as Gibson and Dembo's (1984) instrument as well as their own instrument. Their findings revealed that their instrument was both reliable and valid. For this reason, I chose to use Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*.

English Language Learners

As described earlier, there has been a dramatic increase in the ELL school population (August, Carlo, Dressler, & Snow, 2005; Nieto, 2010), which has changed the dynamic of the classroom for teachers throughout the US. According to McFarland (2016), a total of 3.8 million or 76.5% of ELLs in the US are Spanish-speaking. While a large majority of ELLs in the US are Spanish speakers, the linguistic make-up of the total ELL population is highly diverse and varies by region, such as in the Lau v. Nichols (1974) case, where all of the students were Chinese.

Every country has its own culture, customs, language dialects and slang, and immigrants from those countries bring those traditions with them when they come to the US. Whether ELLs are first generation, or second generation Americans born in the US to immigrant parents, they are immigrants from a variety of countries throughout the world and bring those customs, culture, language and slang with them.

According to Flores, Batalova, and Fix (2012) a total of 55% of adolescent ELLs were born in the US and one in nine public school students is an ELL. Differences in the birthplace of ELLs can create a more diverse population of ELL students, with differing needs. An ELL born in the US could have vastly different cultural and language experiences than an immigrant ELL new to the US and its customs and cultural practices. These differences must be taken into account when teachers' are planning their lessons. The English language and American culture must be made explicit in order for ELLs to comprehend what is being taught.

Factors that Affect ELL Learning

No longer is it possible to teach subject matter in a traditional manner and expect that all students will comprehend what is being taught. The needs of ELL students are different than the rest of the school population, though the academic requirements of ELLs remain much the same as their counterparts. Therefore, teachers must have different strategies that they can use to engage and educate their ELL students.

ELL students are not only trying to learn content subject matter, but at the same time are also trying to learn the English language itself, in which the lessons are being taught (Aguirre-Muñoz & Amabisca, 2010; Carrasquillo & Rodríguez, 2002; Echevarria, Richards-Tutor, Chinn, & Ratleff, 2011).

Cummins (1981) found that for language transfer from native language to second language to occur there must be at least minimal literacy development in their first language. However, Collier (1987) found in her study that adolescent ELL students did not gain academic English as quickly as younger students, which she attributes to the higher academic demands of older students and the limited time in which adolescents have to learn English.

There are two types of English language that ELLs are trying to master. They include Basic Interpersonal Communication Skills (BICS), which is social language, and Cognitive Academic Language Proficiency (CALP), which is academic language that is used in classrooms and textbooks (Bolos, 2012; Peregoy & Boyle, 2008; Watts-Taffe & Truscott, 2000). BICS is acquired in about six months to two years (Cummins, 1981;

Peregoy & Boyle, 2008) while CALP takes much longer with academic language acquisition requiring five to seven years (Cummins, 1981; Thomas & Collier, 1997).

Cummins (1979) created the first theoretical model for second language acquisition (SLA) which included the BICS and CALP acronyms. He created these acronyms in order to distinguish between academic and social language. He believes that teachers need to be aware of these two types of language acquisition, so that they don't mistakenly think an ELL student has mastered the English language when in fact they are only able to communicate socially.

August, Shanahan, and Escamilla (2009) found that ELL oral language is related to second language literacy development, particularly with regard to comprehension. ELL students bring linguistic and cultural diversity to the classroom, and that is something that should be viewed as an asset, instead of a problem for teachers (Nieto, 2010). However, "cognitive ability, age, English oral proficiency, previous learning, and similarities and differences between the first and second languages" (August, Shanahan, & Escamilla, 2009, p. 438) can all affect the literacy development of ELLs.

ELL Academic Performance

A study conducted by Collier (1987) took place in a large public school system on the east coast of the US. She conducted a study of 1,548 lower to middle class background ELLs to discover their rate of English language proficiency for academic purposes in subject area classes including reading, math, science, social studies and language arts. Standardized tests were used to measure their academic language acquisition. Participants included ELL students in grades K-11 who were at a beginning

level of ESL who tested at or above grade level in their first language, and had formal schooling in that language before entering the US. She found that students who entered an ESL program at aged 8-11 with the same length of residency, performed higher academically than other age groups. This same age group had higher achievement in math than native speakers with all other age groups having high achievement in math as well. However, all ELL students performed lower in reading and in language arts.

In 2016, the National Center for Education Statistics revealed that the reading assessment achievement gap between ELLs and Primary English Language Speaking (PELS) students was a staggering 45 points at the 8th grade level, with a 38 point gap in math. This data supports the findings of Collier (1987) that ELL students appear to achieve at a higher rate on standardized tests with math than with reading. However, a substantial achievement gap still exists between ELL and PELS students (Echevarria, Short, & Powers, 2006).

Since No Child Left Behind (NCLB) (2001), ELLs have become more of a focus throughout the US because of their inclusion in mandatory state testing programs. The same tests that are administered to PELS students are also being given to ELLs no matter their level of English proficiency. As a predictable result, ELL test scores lag behind English-only students (National Center for Education Statistics, 2016).

President Obama's *A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act (ESEA)* (US Department of Education, 2010) was reauthorized in order to increase graduation rates from high school as well as college attendance by not only ELLs, but all students. Title III is part of *ESEA* and it provides

funding to states for standards-based ESL programs (National Clearinghouse for English Language Acquisition, 2014). Increased professional development and availability of grants for schools and teachers is also part of the *ESEA* Act. However, in a study conducted by Tanenbaum, Boyle, Soga, Le Floch, Golden, Petroccia, et al. (2012), 71% of administrators surveyed in participating Title III districts, stated there was insufficient funding for ELL programs, and it was a moderate to major challenge for them. Many administrators had to acquire funding from other federal sources or state grants to fund their ELL programs.

The US is a democratic society. As the *Lau v. Nichols* (1974) decision dictates children must be given an equal opportunity for a good education. If the U.S. does not invest the time, funding, and preparation necessary to educate ELL students we can be virtually certain that we will have high levels of academic failure and dropouts, and the social problems that follow close on the heels of an uneducated workforce (Flores, Batalova, & Fix, 2012). Inferior education could create a generation of ill-educated and underprepared young adults entering the workforce.

According to the National Assessment of Educational Progress (NAEP) (2015), only 34 percent of 8th graders performed at or above "proficient" in reading, reflecting a decrease of 2 points compared to 2013 results. ELLs perform much worse, with only 4 percent at or above "proficient" in reading nationwide (NAEP, 2015). Those numbers don't improve for math performance of 8th graders, where only 33 percent perform at or above "proficient," while only 6 percent of ELLs scored at or above "proficient" in math nationwide (NAEP, 2015).

Preparedness Brings Proficiency

A 1998 study conducted by the National Center for Education Statistics found that only 20% of teachers felt well-prepared to teach English language learners. Although this study was conducted almost 20 years ago, according to the literature, those results are still applicable to teachers today.

According to Bandura (1997), “teachers’ sense of instructional efficacy is not necessarily uniform across different subjects. Thus, teachers who judge themselves highly efficacious in mathematical or science instruction may be less assured of their efficacy in language instruction and vice versa” (p. 243). Teachers of ELA, science, social studies and math need to feel confident in their ability to teach ELLs subject area content. Bunch (2013) found in his literature review that teachers need specialized skills and knowledge in order to work with ELLs. They must be familiar with English as Second Language (ESL) strategies that are specific to their content area, so that they are able to increase both the academic and language skills of ELL students. This would not eliminate the need for ESL teachers and curriculum specialists, but instead the education of ELLs will need to be a shared responsibility by all teachers (Bunch, 2013), working together to create a meaningful and productive learning experience for ELL students.

However, the appeal to using “teacher self-efficacy to improve teacher education could lie in identifying teacher education practices that lead to changes in teachers’ efficacy beliefs, which in turn support meaningful changes in actual teaching” (Chan, 2008, p. 191).

As described earlier, funding for ELL academic language and English education programs for public schools is provided by the *ESEA* Act Title III funds. According to Uro and Barrio (2013), most of those Title III funds are used for professional development for English as a Second Language (ESOL) teachers, with a limited number of districts providing professional development to general education teachers in the form of “instructional strategies, language acquisition, literacy, legal requirements, ELL program models, assessment protocols, and use of data” (p. 96).

A brief created by Tanenbaum and Anderson (2010) for the US Department of Education involved state and district phone interviews of Title III staff in Arkansas, California, Indiana, Montana, New York, and North Carolina. The researchers found that accountability factors were in place for Title III funding and that this funding brought forth a focus on ELLs. They discovered that most of the states had in place some form of professional development for mainstream teachers on ESL strategies, and they encouraged teachers to get their ESL endorsement or further professional development if they worked with ELLs.

However, Boyle et al. (2014) found that both school administrators and teachers are unprepared for the increase in the ELL student population, and that teachers lacked the skills and experience necessary to teach ELLs. To increase the preparedness of teachers and administrators, it is vital that educators are “...knowledgeable in first and second language acquisition principles and culturally responsive pedagogy, as well as have access to specialists who are well-trained in differentiating cultural and linguistic differences from disabilities” (Brown & Doolittle, 2008, p. 66). Chen, Kyle and McIntyre

(2008), also found that ELL students continue to have lower academic achievement than their peers, and they believe that this is because teachers are unsure of how to effectively teach ELL students.

Subject area teachers are required to teach the same content to ELL students as their Primary English Language Speaking (PELS) peers, but they are also charged with improving the CALP English language abilities of their ELL students throughout the education process. In order for ELL students to understand the curriculum, they need to be given explicit instruction in the academic language (Aguirre-Munoz & Amabisca, 2010; Ariza, 2010). This is absolutely necessary because academic language is not inherently developed (Aguirre-Munoz & Amabisca, 2010, p. 264).

Subject area content is more challenging for ELLs because each subject area has specific language demands such as vocabulary, unique language features, social communication as well as different academic functions for English that are necessary for comprehension of the subject matter (Carrasquillo & Rodríguez, 2002). Therefore, research on middle school subject area teachers is necessary to determine what their unique challenges are in teaching ELL students.

Many teachers believe that math is an easy subject for ELLs because similar concepts are found in other languages (Ariza, 2010). In a study by Hansen-Thomas & Cavagnetto (2010), they surveyed 118 middle school teachers in Texas, New York, and Pennsylvania and found that the majority of teachers believed that math was the easiest subject for ELL students. However, this may not be accurate. Math has its own vocabulary, double meanings and other idiosyncrasies that are unique to the subject area

(Ariza, 2010), which can make it make it challenging for ELL students to comprehend. A focus on the language of math by both the teacher and students is important so that it becomes familiar (Schlepppegrell, 2007) and comprehensible for the ELL students.

English and ESL classes are more likely to address linguistic needs such as grammar and vocabulary rather than language useful in the content area classes (Janzen, 2008). Many science, social studies, and math teachers believe they are not language teachers even though it is clear that “language is the primary medium through which any discipline is negotiated, constructed, and learned” (Borgioli, 2008, p. 189), and without it ELL students will be unable to succeed. Therefore, it is critical that all subject area teachers become teachers of language because it is a part of every class. Comprehension of language is vital to students’ ability to understand what is being taught, thus, ELLs require comprehensible input from their teachers to make sense of the English language (Krashen, 1982).

The Need for Instruction

For most ELL students to succeed, all teachers must become teachers of not only their subject matter but also of language (Nieto, 2010). The English language must be made comprehensible to all students (Krashen, 1982). Teachers need to be taught how, when, and why to use ESL strategies to help their ELL students to be successful in their classrooms (Butler, 2015). All of these ELL students bring diverse backgrounds with different cultural and educational experiences, which are valuable for teachers to know about, so that they can determine which strategies and materials would be most effective in helping their ELL students (Echevarria, Vogt & Short, 2014). For example, a child

from China could listen to a digital recording of a text while they were following along in the printed text, which would allow the student to hear the correct pronunciation and cadence of the language. An example to make culture more explicit to PELS students would be to create familiarity with what different gestures mean in the cultures of their ELL students. This could prevent teachers and students from accidentally using an insulting gesture in front of ELL students.

A qualitative study conducted by Clair (1995), found that the three teachers whom she interviewed had only limited professional development on working with ELLs, and one teacher did not attend any professional development classes. Two of the teachers preferred to not have any such professional development, but instead preferred to receive materials and support that they could use in their classrooms because of the unhelpful previous experiences that they had with professional development. Clair (1995) found that subject area teachers “need ongoing opportunities to reflect on nonmainstream student issues because educating ESL students is complex; it challenges social, political, and pedagogical assumptions; it is context specific and dilemma ridden” (p. 193).

Due to lack of teacher preparation to teach ELLs, teachers have been learning as they work, with minimal to no support from the school on how to teach ELL students. Clair (1995) also found that because teachers in her study wanted easy solutions, a single professional development experience was not sufficient for instructing subject area teachers in language issues. Instead, she suggested a work study group in which teachers would work together to solve problems. This idea holds promise as a possible sustaining form of professional development for working with ELLs.

However, as Janzen (2008) states, change in teacher practices requires extensive support as well as a large time commitment. According to Picucci, Brownson, Kahlert and Sobel (2004), “teachers with a richer understanding of their subject area and a richer understanding of how students from diverse backgrounds learn will be the most prepared to implement successful practices” (p. 9). Many schools may be unwilling to make a large investment in time and support in order for teachers to change their teaching to include ESL strategies and culturally relevant pedagogy. However, in order for ELLs to achieve their maximum potential, all of their teachers need to know how best to prepare them for success and which strategies are most effective in supporting them.

Middle school subject area teachers on the whole receive limited professional development to assist them in teaching ELLs (Carrier, 2005; Echevarria, Short, & Powers, 2006; Echevarria, Vogt & Short, 2014). Recently a focus on subject area teachers that teach ELLs as well as teacher preparation has become an important issue in the field of education (Janzen, 2008). According to Borgioli (2008), math teachers receive little to no professional development with regard to language teaching or sheltered instruction in English. In a study conducted by Tanenbaum et al. (2012) they found that Title III districts participating in their study had 73% of their mainstream teachers lacking in expertise in how to address ELL needs, and it was a moderate to major problem for them. The researchers also found that schools with the highest poverty rate and highest number of ELLs had the least qualified ESL teachers.

Many schools may be unwilling to make a large investment in time and support in order for teachers to change their teaching methods to include ESL strategies and

culturally relevant pedagogy. However, in order for ELLs to achieve their maximum potential, or even to meet the minimum guidelines required by the directive from our Supreme Court, all teachers need to know how best to prepare themselves and their students for success and which strategies are most effective in supporting them.

All schools should therefore implement at the very least, a structure, and funding, which allows and encourages all of its teachers to address the vital needs of the growing ELL student population in the learning process. The benefits of educating all teachers in ESL strategies and ways of teaching ELLs would be two-fold: increasing the success rate of ELL students in the subject area classes; and a much higher rate of teacher self-efficacy due to having received the tools to effectively deal with the challenge of ELL students in their classrooms.

Summary

This chapter provided a review of the literature on self-efficacy beginning with general self-efficacy research. It then discussed Bandura's more recent work on teacher self-efficacy as well as teacher self-efficacy scales. A connection between strong teacher self-efficacy and student success was discovered. Another focus of this chapter was studies that show the growing number of ELL students within US schools, and their national testing performance. Differences in the language requirements of different subject areas were also found. Subject area teachers were the final focus of the literature review, and the importance of teacher preparedness for ELL students through professional development was addressed.

CHAPTER 3

METHODOLOGY

This chapter will include the research questions for this study as well as the methodology that was used to analyze the data. An explanatory sequential mixed methods design was used for the study. Both a quantitative analysis of a modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* instrument and a qualitative analysis of interview data were implemented. The findings from the quantitative analysis were further investigated through qualitative analysis of the open-ended survey questions as well as participant interviews.

The teacher self-efficacy of middle school teachers who teach English language learners (ELLs) is the focus of this research study. The study includes all counties in South Carolina with a specific focus on licensed subject area teachers of middle schools in those counties.

Research Design

Mixed methods research has been defined by Gay, Mills and Airasian (2012) as the combining of quantitative and qualitative methods by inclusion of both in a single study, building on “the synergy and strength that exists between quantitative and qualitative research methods to understand a phenomenon more fully than is possible using either quantitative or qualitative methods alone” (p. 481).

Major studies using mixed methods research did not become common until the mid to late 1980s with studies emanating from people working in fields such as evaluation, education, management, sociology and health sciences (Creswell, 2014).

Mixed methods research is considered the third paradigm of research, with quantitative and qualitative research being the first two paradigms (Denscombe, 2008; Johnson & Onwuegbuzie, 2004; Leech & Onwuegbuzie, 2009). Thus, research using mixed methods, though still a relatively new tool, is being increasingly utilized in research studies being conducted today (Leech & Onwuegbuzie, 2009). Currently, both books and journals (e.g., the *Journal of Mixed Methods Research*) focus on mixed methods, and the literature on the subject has become more abundant.

The quality assurance and the validity of mixed methods research studies have been called into question by some researchers during the past decade (Ivankova, 2014). Mixed methods studies can require large amounts of data as well as time to analyze numeric and text data, and the necessity for the researcher to be familiar with both quantitative and qualitative research, as well as the need for visual models representing the details of the study (Creswell, 2009). Yet, Johnson and Onwuegbuzie (2004) state that mixed methods research "...is inclusive, pluralistic, and complementary, and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research" (p. 17). However, the assessment of the validity and reliability of quantitative and qualitative data need to be done separately (Ivankova, 2014).

Mixed methods research allows researchers to create "more complicated research questions and collect a richer and stronger array of evidence than can be accomplished by any single method alone" (Yin, 2014, p. 66). The ability to have a more informed approach through the use of both methods corresponded well with the research questions

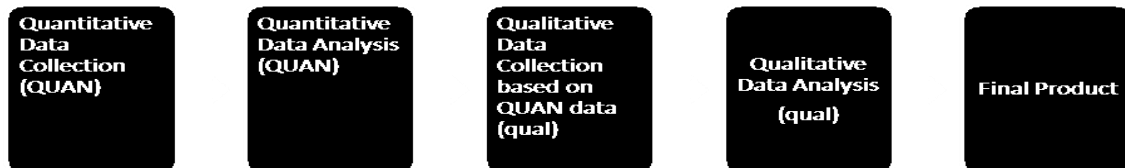
I developed, and the study that I wanted to conduct. For those reasons, I chose to use mixed methods research.

Many different types of mixed methods designs are now being used. For the purposes of this study, an explanatory sequential mixed methods design with a QUAN-qual model was used (Figure 3.1). I chose this type of mixed methods model based on the research questions that I developed. Quantitative data were first collected in the form of a survey that included open-ended questions. Analysis of the quantitative portion of the survey influenced the type of data collected and analyzed in the qualitative portion of the study (Gay, Mills, & Airasian, 2012). The qualitative portion of the study allowed for a closer exploration of the views of a small number of survey participants. This allowed me to give further insight into the quantitative findings of the study and elaborate on the results of the statistical data analysis.

Purposeful sampling was used for the qualitative phase of the study; participants who took the survey volunteered to be interviewed. Qualitative interview questions were created to elicit from the interview participants further information about themselves and their experiences to help me explain the quantitative results in a more detailed manner (Creswell, 2014). The interviews supplied me with more in-depth information about participant beliefs in the classroom engagement of ELLs and instructional practices for working with ELLs.

Figure 3.1

Explanatory Sequential Mixed Methods Model



I chose to use survey research in an effort to generalize findings to a larger teacher population using a numeric description of attitudes from a sample (Creswell, 2014). Survey data offers a broad picture and accurate results (Salkind & Rainwater, 1997). However, there are negative sides to every type of research and for surveys those can include interview participant bias or lack of responses to the survey (Salkind & Rainwater, 1997). Nevertheless, I believe that the negatives were outweighed by the more in-depth look through survey questions and interviews of middle school teachers' beliefs in their ability to engage and instruct ELLs in South Carolina.

Phase 1: Quantitative Methodology

Research Questions

This study answers the following quantitative research questions:

- 1) Does the factor structure of the modified scale reflect the original factor structure of the *TSES* survey?

- 2) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ELL student engagement, as measured by the modified version of Tschannen-Moran & Hoy's (2001) *Teachers' Sense of Efficacy Scale*?
- 3) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ESL instructional practices, as measured by the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*?

I developed two hypotheses for this study. The first hypothesis stated that there was a relationship between self-reported levels of teacher self-efficacy and ELL student engagement in subject area teaching in South Carolina middle schools as measured by the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*. The null hypothesis stated that there was not a statistically significant relationship between ELL student engagement and teacher self-efficacy. The second hypothesis stated there was a relationship between self-reported levels of teacher self-efficacy and instructional practices with ELLs in subject area teaching in South Carolina middle schools, as measured by the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*. The null hypothesis stated there was not a statistically significant relationship between the instructional practices with ELLs and teacher self-efficacy.

Participants

This study was conducted in the state of South Carolina in the United States of America. Participants in the study included current licensed subject area teachers of middle school in South Carolina willing to participate in the study. An a priori power analysis indicated a total of 180 participants were needed to achieve 80% power. A total of 179 middle school teachers from across the state of South Carolina participated in the self-efficacy survey and 12% of the survey respondents volunteered to participate in interviews.

Phase 1 participants were selected on a voluntary basis using convenience sampling. Demographics were broken down to show the diverse backgrounds of participants (Table 3.1).

Table 3.1
Key Demographic Characteristics of Subject Area Participants

Characteristic		Math		ELA		Science		Social Studies		Total	
		<i>f</i>	%	<i>f</i>	%	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>
Gender	Male	4	15.4	4	9.3	7	21.9	6	35.3	81.9	21
	Female	22	84.6	39	90.7	25	78.1	11	64.7	318.1	97
Age	21-30	10	38.5	11	25.6	11	34.4	6	35.3	133.8	38
	31-40	2	7.7	10	23.3	8	25.0	4	23.5	79.5	24
	41-50	6	23.1	10	23.3	7	21.9	4	23.5	91.8	27
	51-60	7	26.9	11	25.6	6	18.8	3	17.6	88.9	27
	61+	1	3.8	1	2.3	n/a	n/a	n/a	n/a	6.1	2
Race	Other	n/a	n/a	1	2.3	n/a	n/a	1	5.9	8.2	2
	Black	2	7.7	1	2.3	4	12.5	1	5.9	28.4	8
	White	23	88.5	38	88.4	27	84.4	15	88.2	349.5	103
	Unwilling to answer	1	3.8	3	7.0	1	3.1	n/a	n/a	13.9	5
Degree	Bachelor's	10	38.5	8	18.6	3	9.4	5	29.4	95.9	26
	Master's	16	61.5	34	79.1	27	84.4	11	64.7	289.7	88
	Doctoral	n/a	n/a	1	2.3	2	6.3	1	5.9	14.5	4
Yrs. of Teaching Experience	< 5 yrs	6	23.0	11	25.6	15	46.8	8	47.0	142.4	40
	6-10	10	38.4	11	25.6	6	18.7	3	17.6	100.3	30
	>11	10	38.4	21	48.8	11	34.3	5	29.4	150.9	47

Demographic information also showed a division of participants by grade level with 40.8% being sixth grade teachers, 48% as seventh grade teachers, and 49.2% as eighth grade teachers. Only 2% of participants spoke a language other than English as their first language. A total of 112 teachers had fewer than 5 ELLs in their classes, 29 teachers had 6-10 ELLs while 20 teachers had 11 or more ELLs in their classes.

Many survey participants had little to no college coursework that prepared them to teach ELLs. A total of 67% of participants had no English as a Second Language (ESL) coursework in college, 13% had one course, while 8% had taken 2 courses, and 1% had taken 3 or more ESL courses. A similar finding was discovered for professional development with 70% of participants having fewer than 5 hours of ESL professional development, 18% with 6-10 hours, 4% with 11-20 hours, 4% with more than 20 hours, and 4% of participants were unsure of how much professional development they had received on ESL strategies.

My demographic information shows a large number of middle school teachers with master's degrees. This high percentage of master's level participants is probably due to a survey request being sent out to students that had completed a Master of Arts in Teaching (MAT) in middle grades education program at the university at which I'm doing my doctoral work. In addition, although teachers are not required to have a master's degree to teach in South Carolina, according to the South Carolina Department of Education (2016), a higher percentage of teachers held master's degrees (38.5%) than bachelor's degrees (26.8%) for the 2014/2015 school year.

Instrument

The quantitative part of this mixed-methods study involved the use of a modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale (TSES)*, which is considered open-access. The modified version of *TSES* provided answers to the quantitative questions in this research study. I decided to use Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale (TSES)* 1-9 Likert scale, but adapted it to focus on measuring the self-efficacy of middle school subject area teachers who were teaching ELLs. All of the questions were changed to reflect English language learners instead of Primary English Language Speaking (PELS) students. I modified each of the questions by adding the acronym "ELL" to each question. I also eliminated the subscale for classroom management because it was not the focus of my study. The modified version of this instrument consisted of 16 items that focused on teachers' perceptions of ELL students' engagement and teachers' instructional practices for working with ELL students. The survey had a Likert response scale of 1 (*Nothing*) to 9 (*A Great Deal*). Qualtrics (2014) was used to collect the data, which was then analyzed using SPSS Statistics 21.0 (2012). Additionally, demographic information was added to the beginning of the survey to obtain more general information about the participants. I also chose the Likert scale with the longer 24-item survey because it allowed me to have a wider variety of questions and more data to analyze. Furthermore, I created open-ended questions to give a more in-depth view of teacher self-efficacy.

Pilot Study. A pilot study was conducted on the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* to determine the validity and

reliability of the scores of the revised version of the instrument. A pilot study allowed me to identify and revise problematic questions, format, and scales (Creswell, 2014). A total of 15 undergraduate pre-service elementary education majors with emphasis areas in language, literacy, and culture, 17 science and math pre-service elementary education majors and 39 graduate-level pre-service teachers participated in the survey. Eleven certified elementary and middle school teachers in graduate school also took the pilot survey. A total of 71 pre- and in-service teachers responded to the survey. Responses from 9 individuals were not included in the final analysis because participants began but did not complete the survey. I chose the longer 24-item survey instead of the 12-item scale because the majority of those I was surveying were preservice teachers, and according to Tschannen-Moran and Hoy (2001), there is often a less well-defined factor structure for preservice teachers, so that a longer survey gives a more accurate view of the population. To maintain consistency the same survey structure was used with current certified teachers of middle school for the research study. The pilot study included semi-structured questions that were used in the qualitative part of the study.

SPSS was used to analyze the pilot study data. SPSS is a user-friendly software product that analyzes quantitative data in a spreadsheet-based format with "...facilities of data edition, representation and graphical support in an interactive way" (Marques De Sáp., 2003, p. 20). SPSS also assists in determining reliability of tests by using Cronbach's alpha to analyze the data. The pilot study had a high reliability with Cronbach's alpha $> .80$. Validity of the instrument had already been determined through previous factor analysis by Tschannen-Moran and Hoy (2001). Due to anonymity, I was

unable to differentiate between pre-service teachers who had taken ESL courses and those who did not. Comments and feedback from the pilot study participants were vital to the improvement of the instrument.

I completed a factor analysis to determine the factor loadings for each question on the survey to verify which items were loading correctly under the factors, and which were not loading correctly. The factor analysis was completed to verify the internal validity of the instrument. The results of the factor analysis showed whether the questions that I was using had a high or low factor loading, and if they needed to be revised or removed in order to improve factor loadings.

Upon completion of the factor analysis of the pilot study, and reviewing participant comments and feedback, four questions were eliminated, six were changed for clarity, and three were added to the survey while keeping the original 16 questions from the *TSES* instrument. These changes created a clearer, more reliable and valid survey for participants in this research study.

Final Modified Instrument for the Study

I modified and added questions to Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*; so that it would more accurately gauge the self-efficacy that middle school teachers experience when teaching ELLs. The adapted scale used 'I can' statements in keeping with Bandura's (2001) "Guide for Constructing Self-Efficacy Scales." Delinger, Bobbett, Olivier and Ellett (2008) stated that Tschannen-Moran and Hoy's (2001) *TSES* is used frequently in educational research and it seems to measure teacher self-efficacy instead of teacher efficacy, which is what I wanted to measure in my

study. Bandura (1997) showed concern for single unit intervals such as 0 to 10, which Tschannen-Moran and Hoy use in their instrument. Bandura (1997) believes that the scale might have a limited number of steps which could limit the differentiation in answers from people, where a scale with intermediate steps might produce different responses. He believes self-efficacy scales should be the measurements of the belief that people have in their own abilities to achieve the demands of different levels of tasks in specific psychological domains being studied (Bandura, 1997). “Efficacy beliefs do not share the major properties ascribed to personality traits; this raises questions about the appropriateness of some of the trait-based psychometric procedures for evaluating self-efficacy measures” (p. 45). Nonetheless, some of the problems that a limited Likert scale may present can be mediated by doing personal interviews of participants in a timely manner, which can increase confidence in the accuracy of the self-efficacy scale (Chesnut & Burley, 2015). For that reason, I included personal interviews in my research study. I also conducted a pilot study to determine whether or not my adaptation of the *TSES* survey was measuring teacher self-efficacy accurately.

The first part of the survey included demographic data followed by the 1-9 Likert scale of self-efficacy questions, and finally the open-ended response questions. There were 18 demographic questions that included questions such as participant age, sex, race, years of teaching, area of certification, and experience teaching ELLs (Appendix A). A total of 22 Likert scale self-efficacy questions were included, as well as 7 open-ended questions (Appendix B). Furthermore, I expanded upon these open-ended questions and

created semi-structured interview questions to ask those participants who agreed to also participate in personal interviews.

Data Collection Procedures

I contacted school district offices throughout South Carolina for permission to contact middle-school teachers and solicit participation in the research. Additionally, I contacted personal and professional acquaintances to solicit participation. After receiving permission from districts and/or principals, I sent the Qualtrics survey link to middle school teachers so that they could take the online survey. After two weeks, I followed-up with principals and teacher contacts, and resent the survey link.

I used Qualtrics to distribute the survey because electronic surveys are a low cost, fast form of surveying participants with accessibility and speed of response (Dillman, Smyth, & Christian, 2014). For these reasons, I chose to create a digital survey, and use Qualtrics to create the survey because of the ease of access and the user-friendly format. The link created by Qualtrics allowed the survey to be e-mailed to participants, so that they could take the survey anonymously online using either their computer or phone at their school or in the privacy of their own home. Dillman, Smyth, and Christian (2014) state that some of the problems with using internet surveys are: design flexibility, control over the data, data access and reporting, and the overall cost of software packages that are used to create the online survey. These are all important factors to keep in mind. However, I addressed these problems by having free access to Qualtrics through Clemson University with continuous access to the data, and because the survey was anonymous, confidentiality was not a concern.

The survey remained open for approximately 10 weeks to allow middle school teachers throughout the state of South Carolina the opportunity to take the anonymous survey. The survey link was originally sent out to middle school teacher contacts in January of 2016.

Data Analysis

A total of 179 participants took the survey. However, 18 participants failed to complete the survey in its entirety and their data were excluded from the analysis. Of the 161 participants completing the survey, only 99 taught math, science, social studies, or English language arts; 63 participants taught related arts. Scores from the 16 items of the teacher self-efficacy survey instrument were distributed into two subscales: (a) student engagement and (b) instructional practices. In addition, scores were analyzed based on the subject area taught.

The quantitative part of this study used non-experimental survey research as follows:

Research question 1: “Does the factor structure of the modified scale reflect the original factor structure of the *TSES* survey?” was created in order to determine whether the factor structure of the modified version of the *TSES* survey was comparable to the original version of the *TSES* survey.

Research question 2: “Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ELL student engagement, as measured by the modified version of Tschannen-Moran & Hoy’s (2001) *Teachers’ Sense of Efficacy Scale*?” was created to determine a relationship between subject area teachers

and their self-efficacy beliefs in their ability to engage and motivate ELLs in class discussions and learning.

Research question 3: “Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ESL instructional practices, as measured by the modified version of Tschannen-Moran and Hoy’s (2001) *Teachers’ Sense of Efficacy Scale*?” was created to determine a relationship between subject area teachers and their self-efficacy beliefs in their ability to use instructional strategies effectively with their ELL students.

Both research questions two and three addressed the reliability and validity of the *TSES* instrument using a factor analysis of the pilot study instrument. Furthermore, the final research study survey instrument also had a factor analysis completed to determine the reliability and validity of the survey questions. The factors included for analysis of the survey were instructional practices and student engagement. Tschannen-Moran and Hoy (2001) recommended the use of factor analysis per their instructions for using their self-efficacy instrument.

Both research questions two and three required an analysis of variance (ANOVA) test to be conducted. An ANOVA is used to measure the difference between two or more means (Russel, 2002). I wanted to determine if there was a statistically significant difference (at $p < .05$) between the self-efficacy of math, ELA, science and social studies teachers in ELL student engagement and ESL instructional practices.

The dependent variable for ANOVA 1 was student engagement while the dependent variable for ANOVA 2 was instructional practices as measured by the

modified *Teacher Efficacy Scale* survey originally created by Tschannen-Moran and Hoy (2001). The independent variables were the four subject areas of ELA, social studies, math and science. A post hoc Tukey HSD Range test was used to understand how the means differed between groups. Effect sizes were also determined.

This study began by addressing the quantitative part of the study, by administering a modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* with middle school subject area teachers. I planned to recruit 180 currently certified teachers that teach social studies, English, math or science in South Carolina middle schools. They completed an online survey using an anonymous Qualtrics link in order to ensure the anonymity of the participants. This survey provided insight into the self-efficacy levels that middle school teachers experience while teaching ELLs. The survey collected descriptive as well as demographic data about the participants.

The original teacher self-efficacy instrument was created by Tschannen-Moran and Hoy's (2001) and measures *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*. For purposes of this study the focus of the self-efficacy instrument was only on the subscales of *Efficacy in Student Engagement* and *Efficacy in Instructional Practices*. *Efficacy in Classroom Management* was eliminated as a factor because it did not fit the parameters of this study. The focus of this study was the self-efficacy of teachers who teach ELL middle school students with regards to student engagement and instructional practices for ELLs, not classroom management.

Efficacy in Instructional Practices measured the confidence teachers had in using ESL instructional practices to meet the academic needs of ELLs. Examples of these types of questions included “How much are you able to use a variety of assessment strategies for ELLs?” and “How much can you gauge English language learners’ comprehension of what you have taught?”

Efficacy in Student Engagement measured the confidence of teachers to engage students in discussion and other instructional activities. Examples of student engagement questions included “How much can you do to get through to the most difficult English language learners in your classroom?” and “How much can you do to improve the understanding of an English language learner who is failing?”

To collect the most up-to-date data, only currently licensed teachers in South Carolina middle schools were contacted to participate in this survey. Participant survey results were differentiated by subject area (ELA, math, social studies, and science) in order to gauge whether self-efficacy while teaching ELLs differed by subject area.

Phase 2: Qualitative Methodology

Qualitative data describes the phenomena being studied by using words (Gay, Mills, & Airasian, 2012). The qualitative component of this study involved the use of semi-structured survey questions and interview questions that were developed based on the quantitative research data. I decided to use a couple of questions from the open-ended survey questions so that I could gain more information from the participants. Individual interviews of 8 middle school math, science, social studies, and ELA teachers who volunteered to be interviewed were conducted. Two middle school teachers were chosen

from each subject area and were interviewed either in person or online. All interviews were audio-recorded and transcribed verbatim in order to analyze the data they provided. This part of chapter three will provide a review of the sample population, instrumentation and procedure for collecting qualitative data. The qualitative research questions are also provided.

The survey data gave me background information on each of my interview participants as well as their overall self-efficacy scores for teaching ELLs. I began each interview with background questions about their education and preparation to become a teacher as well as any previous cultural experiences they had. I wanted to learn more about their experiences leading them to become teachers. Next, I wanted to learn more about the ELLs in their classes, and what specific strategies they used with their ELL students to teach them and engage them in discussion as well as how they differentiated their instruction for their ELL students. I also created questions to discover what teachers knew about the background of their ELL students. Furthermore, I wanted to find out what support teachers were receiving from their school and district to help them to teach their ELL students, and what they thought about the support or lack of support that they received. These questions were necessary for me to gain a better overall picture of the teaching experiences of this small group of participants as well as how they instructed and engaged their ELL students in their classroom.

Research Questions

This study attempted to answer the following qualitative research questions:

- 4) What are middle school teachers' perceptions of ELL student engagement?

- 5) What instructional strategies do middle school subject area teachers currently utilize to help them to work with ELLs?

Participants

In the qualitative part of the research study, otherwise known as phase 2 of the overall study, I chose participants by using purposeful sampling. This allowed me to “...intentionally select participants who have experienced the central phenomenon being explored in the study” (Creswell & Clark, 2011, p. 173). However, they had to meet the qualifying requirements to participate beyond the anonymous survey. Respondents needed to meet the following criteria:

- They completed the teacher self-efficacy survey.
- They volunteered to participate in the qualitative interview.
- They are a currently licensed practicing middle school ELA, social studies, math, or science teachers in the state of South Carolina.

A total of 41 survey participants volunteered to be interviewed for the qualitative portion of the study. Twenty teachers were able to participate. In order to further limit the number of interviews chosen for analysis, I developed a more precise criteria to determine which participant interviews would be analyzed. The criteria included:

- Subject area taught, i.e., math, ELA, science, or social studies
- Years of teaching experience (1 teacher with a high number of years and 1 teacher with a low number of years)
- Number of English language learners with whom the teacher worked
- Uniqueness of their teaching environment

- Richness of conversation and wealth of information given during the interview
- Geographic location in South Carolina
- The sex of the participant

The criteria helped me to identify participants for the qualitative phase of the study. The final eight participants represented two teachers from each of the four major subject areas: math, science, social studies, and English language arts.

The demographic data of my interview participants helped me to form a better picture of their educational background as well as their background in teaching (Table 3.2).

Table 3.2: *Phase 2: Key Demographic Characteristics of Qualitative Participants*

Participant	Subject Area Taught	Years of Teaching Experience	Number of ELLs Taught	Geographic Location in SC	Degree	Sex	Race
Kim	ELA	17	14	Greenville	M.A.	Female	White
Mike	ELA	6	12	Anderson	B.A.	Male	White
Rhonda	Science	1	5	Fort Mills	B.A.	Female	White
Melissa	Science	23	3	Greenville	M.A.	Female	White
Eve	Math	9	7	Aiken	M.A.	Female	White
Keesha	Math	4	3	Columbia	B.A.	Female	Black
Ted	SS	8	13	Aiken	ABD	Male	White
Anna	SS	2	14	Newberry	M.A.	Female	Other

All of the interview participants speak English as their first language. Keesha teaches sixth grade math. She has taken two ESL courses and has had 10 hours of ESL professional development. Melissa teaches seventh and eighth grade science and has taken one ESL course and received three hours of ESL professional development. Mike

teaches eighth grade ELA and has taken one ESL course and received 40 hours of ESL professional development. Anna teaches eighth grade social studies and she has had no ESL coursework and three hours of ESL professional development. Eve teaches eighth grade math and has taken two ESL courses and received five hours of ESL professional development. Ted teaches eighth grade social studies and has had no ESL coursework and received four hours of ESL professional development. Rhonda teaches sixth grade science and has had no ESL courses and no ESL professional development. Kim teaches seventh and eighth grade ELA and has taken more than five ESL courses to earn an ESL endorsement, but she has received only one hour of ESL professional development.

Instrument

I developed an interview protocol, gave it to participants in the form of a consent letter, and asked them to sign before beginning the interview. The protocol informed participants about the reason for the study and any possible risks, discomforts, or benefits to participating in the interview portion of the study (Appendix B). Only participants who signed the consent form were considered for phase 2 of the research study.

The first phase (of the qualitative part of this study) was to administer the open-ended questions in the survey. These open-ended questions allowed a more focused look at what middle school teachers' were thinking and experiencing at their schools and in their classrooms.

The second phase (of the qualitative part of the study) included a semi-structured format for interviews. A more structured interview format was chosen because I wanted a

representative sample of subject area teachers to ask identical interview questions while giving equal importance to each participant's responses (Guba & Lincoln, 1981).

Participant interview questions were created based on the results of the quantitative as well as the qualitative part of the survey. I decided which questions would help me to answer my qualitative research questions, and I used some of the open-ended questions from the survey. I then developed my interview questions based off of data analysis of the survey responses.

I began the interviews with more in-depth demographic questions that would build off of the quantitative answers from the survey. I asked questions about where the participant grew up and the diversity of the schools they attended as a child as well as questions about their teacher education programs in order to determine how much cultural and linguistic diversity they had experienced in their educational background. Questions such as: "Thinking back to your early education when you were in elementary/middle/high school, please describe the population of students? Was there a diverse student body?" and "Did your classes prepare you well for teaching in general? How or what could they have done better? What did they do well?" were asked of participants. This allowed me to gauge whether participants felt prepared when they entered their classrooms for the first time. I then delved more deeply into the questions about their self-efficacy with ELLs. I wanted more in-depth answers regarding the classes they taught, their ELL students, how they felt when teaching ELLs, and what school support they received from either their school or the district. I also wanted to understand what participants did to assist their ELL students in their classes. Questions such as "what

instructional strategies do you use with your ELL students?” allowed me to see if they were differentiating their instruction based on their ELL students. I also asked some of the same open-ended questions that were on the self-efficacy survey. For example, “what does your current school do to provide teachers with support for teaching ELLs?” was a question that was both on the survey and asked during the online interview. I wanted to see whether South Carolina middle school teachers were being supported by their schools in learning how to teach ELLs. By using a few questions that were answered already on the survey, I allowed participants to expand their thoughts on the subject. I also created questions about teachers’ views on working with ELLs as well as their experiences teaching these students. Additional questions asked of the participants depended on their responses (Appendix E).

Data Collection

There were 20 middle school subject area teachers that were interviewed regarding their experiences teaching ELLs, the strategies they employed to help ELL students as well as how they engaged their ELL students in learning. A total of nine men and 11 women volunteered to be interviewed (Table 3.3).

Twelve of 20 participants completed an online interview with me using www.gotomeeting.com. The other eight participants were interviewed in person and recorded using my own recording device. The online interview was audio-recorded using GoToMeeting audio and my own recording device for more accurate coding purposes. Interviews ranged in time from 13 minutes to an hour and 15 minutes. Eight interviews that best met my selection criteria were chosen for data analysis. These eight represented

two participants from each subject area (math, ELA, science, and social studies). I chose only two participants from each subject area. I wanted a small representative sample from my larger sample of survey participants in order to give me more in-depth answers on ELL student engagement and ESL instructional practices.

Qualitative Data Analysis

A qualitative content analysis method (Guba & Lincoln, 1981; Lincoln & Guba, 1985) was used for data analysis. Content analysis is used for “identifying, coding, and categorizing the primary patterns in the data” (Patton, 1990, p. 381). Prior to data analysis, I categorized my interview questions into each of four themes. All the interview questions addressed one of the four themes: *teacher differentiation of instruction for ELLs, instructional strategies used by teachers of ELLs, discussion strategies and communication implemented by teachers of ELLs, and school support and teacher preparation to work with ELLs*. To begin data analysis, I placed participants’ responses to each of the questions into each of the themes. Then, I began analysis by reading all eight participant responses to interview questions within one theme. For example, I read all responses to questions that addressed the theme *teaching strategies*. I made comments in the margins about what ideas were being shared as well as information that I found interesting. I also looked for patterns among the data to determine whether teachers were answering questions similarly. I constructed codes that emerged from participant interview responses to questions within each theme. I then coded the data and looked for the most frequently used codes in order to reduce repetitive codes. A second reviewer was brought in to code the data because establishing inter-rater reliability is

recommended when coding data (Schensul, Schensul, & LeCompte, 1999). In order to establish inter-rater reliability, a colleague who had worked on multiple research studies and had experience coding qualitative data was asked to code data for two of the four themes: teacher differentiation of instruction for ELLs, as well as discussion strategies and communication implemented by teachers for ELLs. After reviewing his codes we discussed our different coding choices and came to 100% agreement in the way the data was coded.

Validity and Reliability

One way in which validity and reliability were addressed in this study was by the piloting of the research instrument. To increase the validity and reliability, certain precautions were taken. Before the study began, participants were informed about the purpose of the study and the limited risks involved in participating in the study. Participants were also assured of their anonymity, and that any personal information would be private and securely protected, and not shared with anyone outside of the study.

I increased the validity and reliability of the quantitative part of the study by the following actions: (1) using Tschannen-Moran and Hoy's (2001) previously validated teacher self-efficacy instrument, which already had a completed factor analysis; (2) conducting my own pilot study using a modified version of Tschannen-Moran and Hoy's (2001) instrument.

To increase the validity and reliability of the qualitative part of the study, I consciously tried to remain impartial during interviews. I achieved inter-rater reliability with a second reviewer independently coding a selected sample of two of the four themes

with all eight interview responses for each theme being coded. By reaching 100% agreement between coders there was an increase in the reliability of the study.

Summary

In this chapter an explanation was given for why the research method chosen for this study was an explanatory sequential mixed methods design using a QUAN-qual model. This method best fit the research questions guiding the study. The qualitative data collection was influenced by the findings of the quantitative data analysis. SPSS was used to analyze teacher survey results. A qualitative content analysis method was used to analyze the qualitative data. Inter-rater reliability was completed to increase the reliability and validity of the study. Participant requirements, data collection, data analysis instruments as well as potential limitations of the study were also addressed in this chapter.

CHAPTER 4

RESULTS OF DATA ANALYSIS

The purpose of this mixed methods study was to determine whether middle-school teachers' self-efficacy teaching English language learners (ELLs) differed across academic subject areas. This chapter will present the results from both the quantitative and qualitative data analyses. The quantitative phase of this study was analyzed first using the statistical results of middle school subject area teacher responses to the modified online version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*. Demographic data about each participant from the *TSES* survey helped to supply me with more information about the participants, which allowed for a more informed picture for this mixed methods study. The results from the *TSES* survey also provided information that was helpful to the qualitative phase of the study. The Likert scale responses as well as the open-ended question responses from survey participants helped me to create semi-structured interview questions for interview participants. The data from the *TSES* survey also allowed me to calculate the teacher self-efficacy scores of my interview participants giving me a more informed view of their strengths and areas of growth as subject area teachers.

Quantitative Results

The quantitative data consists of survey responses from South Carolina middle school teacher participants. The demographic results from the survey included a total of 33 male and 127 female middle school teachers. The majority of participants had advanced degrees.

Research Question 1

Does the factor structure of the modified scale reflect the original factor structure of the TSES survey?

Tschannen-Moran and Hoy's *TSES* (2001) suggest that the factor structure of the instrument be examined prior to addressing any focal research questions of interest. In the original study with all 24 questions, Tschannen-Moran and Hoy identified three broad dimensions of teacher self-efficacy, namely *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*. Because the factor structure may vary from sample to sample, especially when modifications are made, I conducted an initial factor analysis on the modified 16-item version of the scale. A principal axis factoring with Oblimin rotations was performed. Results from this analysis showed the presence of two factors. The two factors were consistent with Tschannen-Moran and Hoy's original work. The scree plot, depicted in Figure 4.1, indicated that a two-factor solution would be appropriate for the data at hand. The eigenvalue of the first factor was 8.23 with a total variance explained after extraction of 48.73%. The factor included the *Efficacy in Student Engagement* items from the original scale. The second factor was also consistent with the original *Efficacy in Instructional Practices* dimension of self-efficacy identified by Tschannen-Moran & Hoy's scale; it had an eigenvalue of 1.48 and explained 6.65% of the variation in the data (Figure 4.1).

Figure 4.1: *Scree Plot*

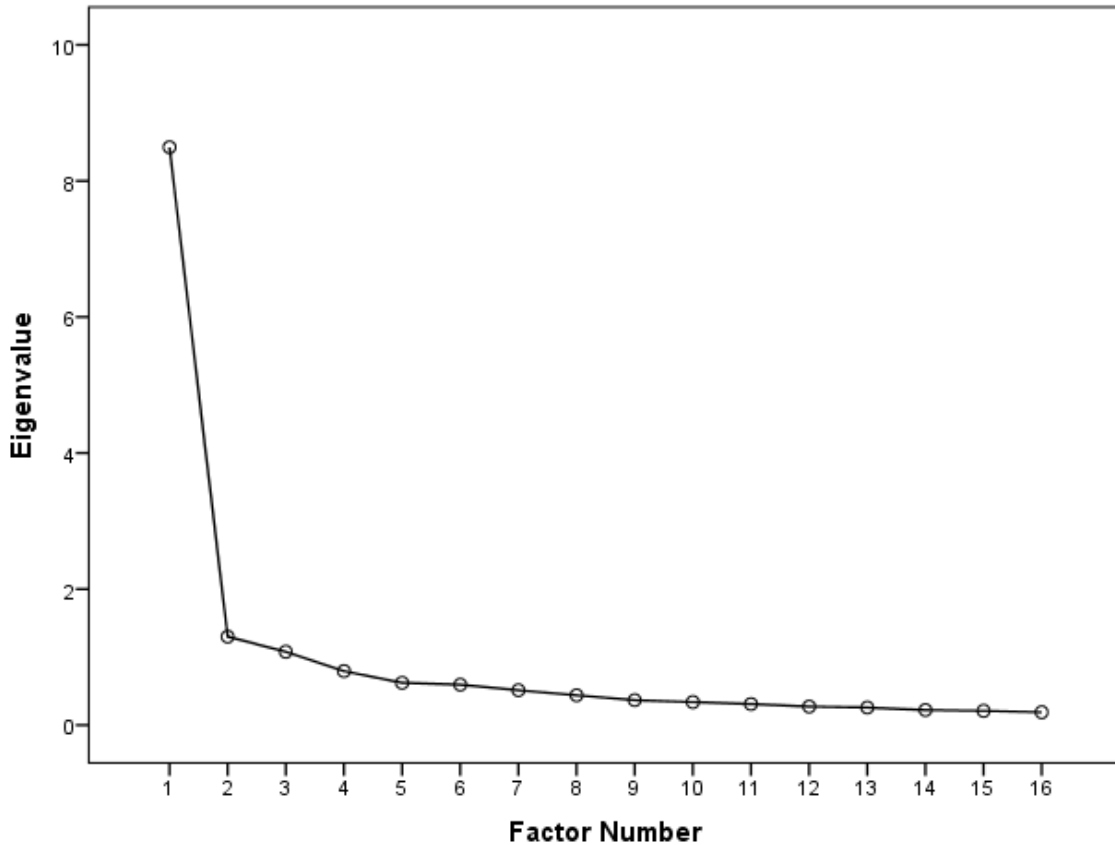


Table 4.1 presents the results from the factor analysis listed with the matching survey question. Both subscales demonstrated high internal consistency with Cronbach's $\alpha > .8$. More specifically, the internal consistency of *Efficacy in Student Engagement* was .88 and the internal consistency of *Efficacy in Instructional Practices* was .91. These results supported the notion that the subscales can be further used to address the major questions of the study.

Table 4.1*Factor Loadings of Items on the Teachers' Sense of Efficacy Scale*

Survey item	Student Engagement	Instructional Practices
How much can you do to get through to the most difficult English language learners (ELLs) in your classroom?	-.49	
How much can you do to help your ELLs think critically?	-.52	
How much can you do to motivate ELLs who show low interest in schoolwork?	-.95	
How much can you do to get ELLs to believe they can do well in schoolwork?	-.83	
How much can you do to help your English language learners' value learning?	-.78	
How much can you do to foster English language learners' creativity?	-.53	
How much can you do to improve the understanding of an ELL who is failing academically?	-.42	
How much can you assist families of ELLs in helping their children to do well in school?	-.29	
How well can you respond to difficult questions from your ELLs?		.71
How much can you gauge English language learners' comprehension of what you have taught?		.61
To what extent can you craft good questions for your ELLs?		.63
How much can you do to adjust your lessons to the proper level for individual ELL students?		.48
How much are you able to use a variety of assessment strategies for ELL students?		.62
To what extent can you provide an alternative explanation or an example when ELL students are confused?		.84
How well can you implement alternative strategies with ELLs in your classroom?		.63
How well can you provide appropriate challenges for very capable ELL students?		.57

Descriptive statistics were used to analyze teacher self-efficacy for engagement of ELLs and instructional practices with ELLs, which provided means and standard deviations for both subscales (Table 4.2 & Table 4.4).

Research Question 2

Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ELL student engagement, as measured by the modified version of Tschannen-Moran & Hoy's (2001) Teachers' Sense of Efficacy Scale?

The second research question queried as to whether there were statistically significant differences in perceived levels of self-efficacy in student engagement among middle school teachers teaching different subject areas. The research question was addressed by performing an analysis of variance (ANOVA). The ANOVA test was deemed an appropriate test for this research question because the goal of the study was to compare more than two groups to determine whether there were reliable differences among them with respect to their mean levels of self-efficacy for student engagement (Tabachnick & Fidell, 2001). The dependent variable in this analysis was participants' mean score on the scale *Efficacy in Student Engagement*. The measure was formed by summing up the participants' responses on all items comprising the subscale of engagement and dividing the resulting sum by the number of items. The independent grouping variable was subject area teaching. The null hypothesis stated that there would not be a statistically significant difference between teachers representing different subject areas and self-efficacy for ELL student engagement. The α level for rejecting the null hypotheses was set at the conventional value of .05. Prior to analysis, I verified that the

major assumptions of the ANOVA statistic were met. The data came from four independent groups, namely [ELA, science, social studies and math] and the dependent variable was assumed to be normally distributed in the population. In addition, Levene's test of homogeneity of variance was non-significant, $F(3, 94) = .78, p = .508$, suggesting that further group comparisons could be made.

Table 4.2 presents the means and the standard deviations of the four groups being compared for student engagement. As shown, mathematics had the lowest mean (5.33) while ELA had the highest mean (6.15) of the subject areas. Social studies had the largest average distance from the mean, while mathematics had the shortest average distance from the mean.

Table 4.2

Descriptive Statistics for Efficacy for Student Engagement by Subject Area

Comparison Groups	M	SD	N
Mathematics	5.33	1.08	22
English Language Arts	6.15	1.29	40
Science	6.01	1.37	23
Social Studies	5.45	1.40	13
Total	5.83	1.31	98

Note: N = 98; M = Mean; SD = Standard Deviation

Despite the observed difference in mean self-efficacy scores, results from ANOVA suggested that there was no reliable difference among groups, $F(3, 94) = 2.46, p = .067$ (Table 4.3). That is, the results showed that there is no relationship between teacher self-efficacy for student engagement and subject area teaching. The null hypothesis was accepted.

I conducted a post hoc power analysis for teacher self-efficacy and ELL student engagement once the data were collected in order to determine whether I had an adequate

sample size. The G*Power 3.0 software program was used for the post hoc power analysis. The analysis revealed a small effect size with only 13% power. A total of 98 subject area teachers responded to the ELL student engagement part of the survey. However, engagement had a small effect size and did not show a sufficiently powered variable. Therefore, it appears that this was not a large enough sample to power the analysis. The results were not significant and this may have been due to a small sample size.

Table 4.3

ANOVA Results for Student Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Student Engagement					
Between Groups	12.086	3	4.029	2.460	.067
Within Groups	153.92	94	1.64		
Total	166.01	97			

The eight survey questions that addressed student engagement asked middle school teachers questions about assisting the families of ELLs, improving the comprehension of ELLs, improving motivation, fostering creativity, and fostering the critical thinking of ELLs. I wanted to determine from their responses, the self-efficacy of middle school teachers and their beliefs in their abilities to motivate and engage ELL students in learning. I found that middle school teachers did not have a high level of self-efficacy in engaging ELLs in learning, but instead showed a lack of self-efficacy.

Research Question 3

Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for instructional practices, as measured by the modified version of Tschannen-Moran and Hoy's (2001) Teachers' Sense of Efficacy Scale?

The third research question queried as to whether there were statistically significant differences in perceived levels of self-efficacy in instructional practices among middle school teachers teaching different subject areas. The research question was addressed by performing an ANOVA. The dependent variable in this analysis was participants' mean score on the scale *Efficacy in Instructional Practices*. The measure was formed by summing up the participants' responses on all items comprising the subscale instructional practices and dividing the resulting sum by the number of items. The independent grouping variable was subject area teaching. The null hypothesis stated that there would not be a statistically significant difference between teachers representing different subject areas in self-efficacy for instructional practices. The α level for rejecting the null hypotheses was set at the conventional value of .05. Prior to analysis, I verified that the major assumptions of the ANOVA statistic were met. The data came from four independent groups, namely [ELA, science, social studies and math] and the dependent variable was assumed to be normally distributed in the population.

I conducted a post hoc power analysis once the data was collected on instructional practices in order to determine whether I had an adequate sample size. The G*Power 3.0 software program was used for the post hoc power analysis for teacher self-efficacy and

ELL instructional strategies. The results showed 62% power for instructional strategies.

There were a total of 99 subject area teacher participants for instructional strategies.

Table 4.4 presents the means and the standard deviations of the four groups being compared for instructional practices. As shown, social studies had the lowest mean (5.23) while ELA had the highest mean (6.29) of the subject areas. Social studies had the largest average distance from the mean, while mathematics had the shortest average distance from the mean.

Table 4.4

Descriptive Statistics for Efficacy for Instructional Practices by Subject Area

Comparison Groups	M	SD	N
Mathematics	5.60	1.14	23
English Language Arts	6.29	1.24	39
Science	5.95	1.25	24
Social Studies	5.23	1.26	13
Total	5.91	1.26	99

Note: N = 99; M = Mean; SD = Standard Deviation

An ANOVA was also run to answer research question three. The null hypothesis stated that there would not be a statistically significant relationship between instructional practices and teacher self-efficacy. However, the data analysis showed $p < .05$ for instructional practices; therefore the null hypothesis was rejected due to a statistically significant relationship between the variables (Table 4.5).

Table 4.5*ANOVA Results for Instructional Practices*

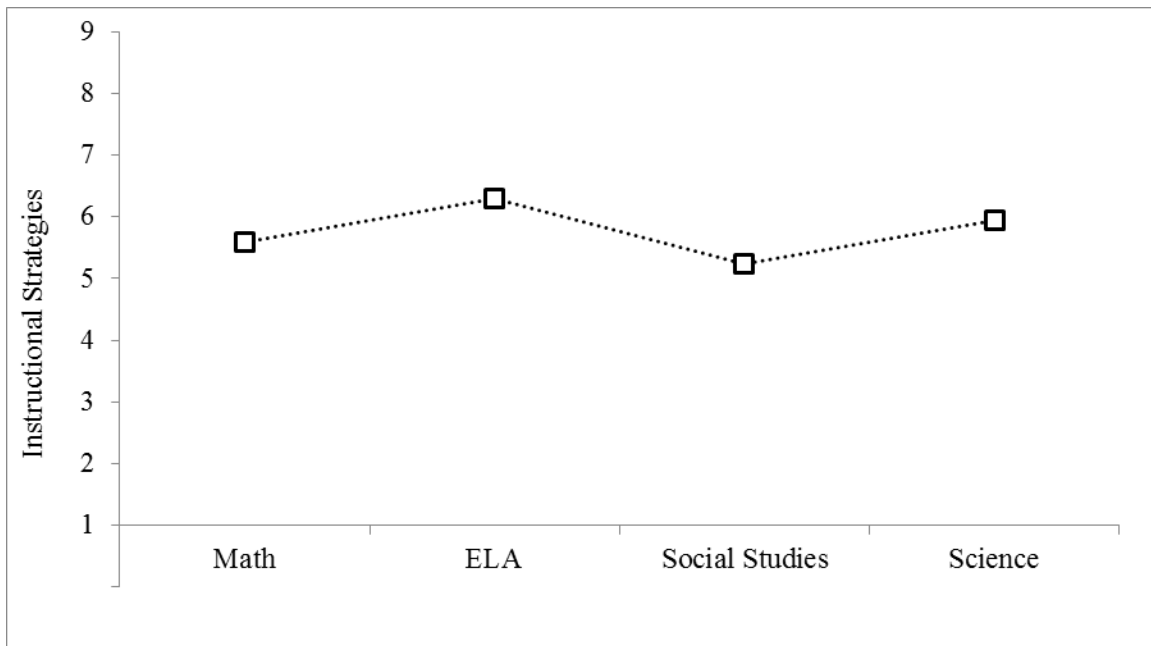
		Sum of Squares	df	Mean Square	F	Sig.
Instructional Practices	Between Groups	13.965	3	4.655	3.110	.030
	Within Groups	142.19	95	1.50		
	Total	156.15	98			

Levene's test. Efficacy in instructional practices for Levene's test showed $F(3, 95) = .171, p = .916$. The scores were presumed to be independent since participant's scores in the *TSES* were not dependent on each other's scores. An interval score was used to measure the dependent variables: efficacy in instructional practices and efficacy in student engagement based on the nine-point-Likert-scale of the *TSES*. I tested the hypothesis that the group variances were equal. I rejected the null hypothesis at the 0.05 significance level since the value of the Levene test statistic is greater than the critical value. I concluded that there was sufficient evidence to claim that the variances were not equal.

The findings demonstrate that there is a statistically significant difference among groups in perceived levels of self-efficacy for instructional practices, $F(3, 95) = 3.11, p = .03$. The null hypothesis stating that such difference would not be found was rejected. Because the ANOVA test detected differences among groups, I performed a follow-up post-hoc analysis to understand where the difference lay. A post hoc Tukey HSD Range

test was run on the data to uncover which of the four means were significant. The post hoc analysis revealed a statistically significant difference in mean levels of self-efficacy between ELA and social studies teachers, $p = .039$. No other differences existed between other subject areas.

Figure 4.2: *Difference in Means of the Four Subject Areas for Instructional Practices*



The eight survey questions that addressed instructional practices asked middle school teachers about their level of self-efficacy in implementing alternative strategies for ELLs, difficult questions by ELLs, crafting good questions, a variety of ELL assessment strategies, gauging comprehension, adjusting lessons for ELLs, and challenging ELL students. I found that ELA and social studies teachers had the highest level of self-efficacy in addressing these areas of instructional practice. According to the responses of math and science teachers, they did not have a high level of self-efficacy with instructional practices.

Qualitative Results

The qualitative phase of the study consisted of responses to open-ended survey questions, and semi-structured interview questions of middle school subject area teacher volunteers who had previously completed the online survey. I kept a researcher's journal to keep track of the dates of interviews, the first name of the participant, some interview responses as well as any personal reflections about the data that were collected. I transcribed interviews verbatim to allow for more accurate data analysis. Before data analysis began, I created four broad themes on which to focus participants' responses (a) teacher differentiation, (b) instructional strategies, (c) discussion strategies and communication implemented by teachers for ELLs, and (d) school support and teacher preparation to work with ELLs. I determined which interview questions fit within each theme and divided them into one of the four themes. Next, I grouped participant responses to questions into one of the predetermined themes. Then, I developed codes by looking at the responses of participants and using their own words to create codes.

Description of Participants

Pseudonyms were created for each participant and every effort was made to maintain the anonymity of the participants' identities. Eight middle-school teachers were interviewed, one Black, one Native American, and six Whites.

I wanted to determine whether there were also similarities in the findings of the self-efficacy results of the general quantitative survey participants with the results of the qualitative interview participants. I found that the scores from the quantitative self-efficacy survey for both ELL student engagement and instructional practices of the

qualitative participants (Table 4.6) demonstrate that the majority of interview participants had an equal or stronger self-efficacy in instructional practices. A similar finding was discovered among the general survey participants that took part in phase 1 of the study. These findings show that my small sample size of eight participants is representative of the majority findings of the quantitative data.

Kim, a White woman in her early 40s and native of West Virginia, currently teaches 7th and 8th grade English language arts. She has 17 years of teaching experience, a Master's degree, an English-as-a-Second-Language endorsement, and is currently working on a Doctor of Philosophy degree in education. She is the only participant interviewed who has an ESL endorsement. She currently teaches a total of 14 ELLs. Kim had the highest overall mean self-efficacy scores, 7.5 for student engagement and 8.5 for instructional practices, of all of the interviewees. This may be due to her higher level of education in ESL. However, she had a higher total self-efficacy with instructional practices than student engagement of ELLs.

Mike, a White male in his mid-to-late 20s, is a native of South Carolina and currently teaches 8th grade ELA. He has taught for six years in South Carolina. He took a less conventional path to earn his teaching certificate. Mike did this by participating in South Carolina's Program of Alternative Certification for Educators (PACE) program, which allows people with college degrees working in other fields to become teachers through their intensive teacher certification program. Participants work as teachers while going through the program. He currently has 12 ELL students in his classes. His total mean self-efficacy scores were 5.75 and 6.0 for student engagement and instructional

practices, respectively. His scores were similar with only slightly higher self-efficacy in instructional practices for ELLs.

Rhonda is a White female in her mid-to-late 20s. She is a native of South Carolina and is in her first year of teaching. She currently teaches sixth grade science and has five ELLs in her classes. Her school has a large Hispanic population. Fortunately, a unique partnership has begun between a local church and the school. Teachers go every week to tutor ESL students at the church and translators from the church help out at the school. This has created a great working partnership between the community, Hispanic families, and the school. Her total mean self-efficacy scores were 6.13 and 4.75 for student engagement and instructional practices, respectively; demonstrating that she feels more self-efficacy in engaging her ELL students.

Melissa is a White female in her late 50s, and she plans to retire in a few years. She lived in several different states while growing up, and has taught middle school science in three different states. She has a Master's degree and is working on her master's plus 30. Currently, she teaches seventh and eighth grade science and has three ELLs in her classes. However, she has been teaching ELLs in her classes for the past 23 years. During her years of teaching she has found that root words, suffixes and prefixes really help all of her students to understand science vocabulary words. Her total mean self-efficacy scores were 6.63 and 6.75 for student engagement and instructional practices, respectively. The self-efficacy she has in both areas appears to be almost equal with slightly greater self-efficacy in instructional practices.

Eve is a White female in her 30s with a master's degree in teaching. She is an eighth grade math teacher with nine years of experience teaching in South Carolina. She currently teaches seven ELLs in her classes. Both a special education teacher and the school ESL teacher help students in her classes, making for a collaborative work environment that helps her to reach and teach both her ELL students and the rest of her students. Her total mean self-efficacy scores were 5.75 and 6.25 for student engagement and instructional practices, respectively. She shows a higher level of self-efficacy for instructional practices.

Keesha is an African American female in her 20s. She has been teaching middle school math for the past four years in South Carolina, and has taken two courses on how to teach ELLs. She currently teaches sixth grade math with five ELLs in her classes. Keesha is working on her master's degree, and is able to communicate in Spanish with her Hispanic ELL students. She is the only participant that was somewhat fluent in a language other than English. Her total mean self-efficacy scores were 6.75 and 8.25 for student engagement and instructional practices, respectively. She had the second highest overall scores for self-efficacy when compared to all other qualitative research participants. It is evident that she feels especially confident with her instructional practices for ELLs.

Ted is a White male in his 40s who spent his younger years as a military kid living in different places around the world. His family eventually settled in South Carolina when he was in middle school, and he has remained here ever since. Ted came into teaching after many years in the business world. He received his master's in teaching

social studies and math. He has almost completed his PhD in education. He has been teaching social studies and math for the past eight years. There are 13 ELLs in his eighth grade social studies classes, and he tries to always connect the culture of his ELL students to what he is teaching in social studies, so that they feel included in the class. His total mean self-efficacy scores were 6.63 and 6.63 for student engagement and instructional practices, respectively. Ted scored exactly the same in both areas, therefore, demonstrating equal confidence in both areas.

Anna is a female in her 40s and she is of Native American descent. She has a Master's degree and has been teaching social studies for two years in South Carolina. Currently, she has 25 ELLs throughout her eighth grade classes. She has found eye contact and visuals to be very helpful in communicating with her many ELL students. Her total mean self-efficacy scores were 7.5 and 7.5 for student engagement and instructional practices, respectively. Both of her scores demonstrate her equal levels of confidence in both areas.

The self-efficacy results of Table 4.6 demonstrate the statistical results of how the interview participants view their self-efficacy with both ELL student engagement and instructional practices. However, after interviewing each of these participants, I found that all of the participants had strategies that they used with their ELL students for engagement and in their instructional practice. These strategies varied, but the survey could not show the ways in which these individuals worked with and encouraged their ELL students.

Table 4.6

Qualitative Participant Mean Scores from the TSES Survey

Name	Student Engagement	Instructional Practices
Kim	7.5	8.5
Mike	5.75	6.0
Rhonda	6.13	4.75
Melissa	6.63	6.75
Eve	5.75	6.25
Keesha	6.75	8.25
Ted	6.63	6.63
Anna	7.5	7.5

Note: Based on the 1-9 Likert scale with 1 = *nothing* and 9 = *a great deal*

Data Analysis

After completing the transcription of all eight interviews, I created four major themes to use for organizing the interview responses for data analysis. These themes were created by grouping questions that fit within each theme. Participant responses to questions were then placed under the themes. The four main themes included:

- 1) Teacher differentiation of instruction for ELLs
- 2) Instructional strategies used by teachers for ELLs
- 3) Discussion strategies and communication implemented by teachers for ELLs
- 4) School support and teacher preparation to work with ELLs

I began data analysis with these themes in mind. I wanted to see whether responses from participants were similar to each other. Interview questions were categorized into each of the four themes. Next, I placed interview responses from participants on each of the questions into one of the four themes. Following that, I constructed codes that emerged from participant interview responses to each of the questions within the themes. I looked for words that participants used to describe themselves, their feelings, how they engaged ELL students in class, and the strategies that they implemented with ELLs. Next, I looked for similarities between participant responses, so that I could create codes to group the data. I then calculated the number of times a code was used by participants and adjusted or eliminated unnecessary codes. I was left with a total of 29 codes that were created using participant responses, and I used these to re-analyze the data from the interviews. Some examples of codes include: “communicates with ESL teacher,” or “differentiation of assignments, notes, or tests.” I then grouped the codes into one of the four themes based on how participants responded. A total of five codes were under the theme “instructional strategies,” and the theme “teacher differentiation” had a total of five codes; “discussion and communication” had 10 codes, and “school support and teacher preparation” had nine codes. I counted the number of times a certain code was used during analysis to determine the most commonly used codes. I found that partner work and sharing, differentiation of assignments, the ESL teacher meeting with subject area teachers, communication with the ESL teacher, different strategies used, technology used by teachers, and teacher knows some or all cultural backgrounds of ELLs were the most commonly found codes

with each of them being coded at least nine times. Open and axial coding were not used for this study due to themes being created before coding began.

Inter-rater reliability was achieved by inviting a second reviewer who was invited to code two of the four themes, which totaled 30% of all of the data with 100% agreement between the coders.

Teacher Differentiation of Instruction for ELLs

The first theme, teacher differentiation of instruction, described various ways teachers' adjusted instruction to accommodate ELL students. Some different ways in which differentiation was used by teacher participants included scaffolding; small or simplified words were used, fill-in-the-blank guided notes as well as visuals. Documents and homework translated into the ELL's native language were also used by some participants to assist their ELL students. Another strategy was keeping individual ELL students' work at a rigorous level, so that they remained challenged in their work. For example, Kim differentiated her writing assignments by creating "different rubrics in my class, everybody kind of knows but nobody really cares because everything looks enough alike, and so I differentiate in that way with rubrics." Another participant, Ted, said that he would "...orally read the questions or spend extra time one-on-one in explaining questions and assignments." While, Mike said he has had varying degrees of success with differentiation, "I've had students where I felt like it really did benefit them to not be overwhelmed by that. I've also had students where it's been like a crutch for them to have certain things like that."

Instructional Strategies Used by Teachers for ELLs

The second theme was instructional strategies used by teachers for ELLs. A common strategy among many of the interview participants was the use of partner work and sharing to assist ELLs in their classes. Eve said she does “a lot of pairing and sharing, a lot of individualized instruction, a lot of small group with them, so they're not quite so intimidated, if they don't understand.” Small group and individual work with the teacher was also used. Visuals were another important strategy used by teachers to convey meaning of vocabulary words, and the use of color-coded large index cards with the writing process listed on them was used to help ELLs with their writing. Differentiation of assignments was also mentioned as a helpful strategy for teaching ELL students. Mike differentiates for his ELLs because he doesn't “want to have them get bogged down with the writing process portion of it. I'd like for them to be able to communicate ideas.” He sometimes uses graphic organizers in place of essay writing to make the writing process easier for ELLs with an emerging level of English. The use of different instructional strategies that many of the teachers developed on their own through years of teaching helped them to educate and communicate with their ELL students.

Discussion Strategies and Communication Implemented by Teachers for ELLs

The majority of the interviewees discussed the importance of relating learning to ELL students' personal lives and experiences to encourage them to participate in classroom discussions. Strategic pairing of an ELL student with a more knowledgeable PEL student was a helpful strategy used. Think-pair-share was a strategy mentioned by Rhonda. She said, “I just, you know, sit them by somebody I think would really help them in

discussion. So, a lot of times, once we do that discussion first and then share with the class, they'll participate.” Including ELLs in class discussions was done by “just calling on them, making sure that they're included in the conversation, and not focusing so much on how much they participate, as much as the fact that they are participating. And that doesn't mean that they, necessarily, have to answer out loud. It can be a nodded head, it can be a yes, no question. Something I know that they know the answer to, just to make sure I keep them active and not zoned out, or asleep, or daydreaming” was a technique that Eve uses in her math classes. Keesha said that for her ELL students “...anything that requires them to get up and move around, so if they can move around and talk to somebody they love it. If I let them work with a partner, they love that as well. Anything that allows them to feel like they feel like somebody else...” helps them to increase their participation in her class. Making eye contact with ELL students and the teacher pointing to what they're talking about was another strategy used by participants. Google classroom was used by Kim to get all of her students to participate in writing blogs about what they were reading. She found that when all of her students wrote in a blog-like environment with each other about what they were reading before discussing it in class, then they were more willing to participate in class discussions. Kim found it to be a less threatening way for her ELL students to participate in discussion. Another finding that was common among several participants was that they noticed their ELL students not wanting to stand out from the other students, so they were sometimes reticent to share any personal information or participate in discussions.

The interviewed teachers expressed the importance of communication between subject area teachers and ESL teachers to support ELL students' learning. E-mail was the most common form of communication. Participants also cited communication between subject area teachers and their ELL students as important. The teachers talked with ELL students about their cultural backgrounds to learn more about their personal backgrounds. Some participants included their ELLs' cultures in their lesson plans, and tried to make their class discussions relatable to real-life. For example, Mike tries "to pick things that I feel like are relatable. We try to talk about topics that are engaging and that have different levels of involvement." This strategy helped to increase the participation of Mike's ELL students.

School Support and Teacher Preparation to Work with ELLs

The final theme was school support and teacher preparation to work with ELLs. I found that many of the teachers desired more support from their schools and districts in learning how to teach ELLs. An ESL teacher at the school wasn't enough support for the majority of participants; however, it was the only support available to them. All of the participants stated that they had an ESL teacher at their school that they communicated with about their ELLs, but some of them said that she/he only worked part-time. When asked about school support, Keesha said that "I can't say that it exists, honestly, and I think partly it's because there's so few [ELLs] there. In my school right now it's very rare." Half of the participants had one ESL professional development meeting at the beginning of the year and none for the rest of the year, while other participants had no ESL professional development at their school. Many wanted some sort of professional

development to give them ESL strategies that they could take back into their classrooms. Eve's school was an exception to the situation of limited ESL resources because her school offers ESL professional development throughout the school year as well as an ESL teacher on site for the whole school day. A few participants wanted to be given Spanish lessons, so that they could understand and communicate better with their Spanish-speaking ELLs, since the majority of their ELL students were Spanish-speakers.

All of the participants had an ESL teacher that taught their ELLs English in place of related arts classes. The ESL teacher completed paperwork on their ELL students, helped them with classroom tests as well as teaching her/his own lesson plans in either a part-time or full-time capacity. Several participants also had the same experience as Melissa with their ESL teacher. She said that her ESL teacher helps her to "know where their [ELL students'] strengths and weaknesses are, so that we can focus on their strength and help them get going with that while their working on the weakness." For many participants, school support seemed to be limited. The ESL teacher was the main source of support with little to no professional development to assist subject area teachers in learning how to best assist and teach their ELL students.

Summary

The results of both the quantitative and qualitative data analysis for this study were discussed in this chapter. A further analysis of the research questions was given with a more detailed focus on how the factors of the *TSES* instrument loaded for the research study. Furthermore, the demographic information of participants as well as quantitative ANOVA results was explored. A synopsis of each interview participant was

given as well as a discussion of how themes were developed for coding. How participant's responses were coded was also provided. Additionally, themes were expanded upon by quotes from participant interviews. The qualitative data were presented in a quantitative format through the individual calculations of student engagement and instructional practice scores from the *TSES* instrument.

CHAPTER 5

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH

This chapter includes a summary of this mixed methods research study, as well as its conclusions, implications, and future research suggested by those findings.

Conclusions about this research study were derived from both the quantitative and qualitative data that I evaluated. Implications for the research findings and what they may suggest for middle school subject area teachers' self-efficacy with English language learners (ELLs) are discussed. Finally, recommendations for future research are addressed.

Summary

The American classroom has been progressively changing over the past 20 years, becoming far more diverse than in previous years. The increasing ELL population has, naturally, increased the number of ELL students entering US schools with 9.3 % of public school students in the US being ELLs (Kena, Hussar, McFarland, de Brey, Musu-Gillette, Wang et al., 2016). In spite of these changes, only a limited number of studies have focused on ELLs and middle school teachers. According to Lopez, Passel, and Rohal (2015) of the PEW Research Center, immigrants and their children will represent 36% of the US population by 2065. For these reasons, I conducted a study of middle school teacher self-efficacy with regard to their experiences teaching English language learners.

The Lau v. Nichols (1974) case and NCLB (2001) brought vital attention to the need of, and the legal requirement for, an equal education for English language learners.

However, even with those laws, and the increase in the ELL population, there has not been a subsequent increase in professional development or other programs to instruct teachers in how to teach ELL students. Furthermore, teachers haven't been taught how, when, and why to use ESL teaching strategies at a rate equal to the rising population of ELL students. As a result, teachers often feel unprepared to meet the educational needs of ELL students (Bunch, 2013). Teachers' limited preparedness for teaching ELLs could have a detrimental effect on their self-efficacy creating a snowball effect in the achievement of their ELL students.

I attempted to measure a specific type of teacher self-efficacy; the confidence of teachers of middle school in teaching adolescent ELLs in specified subject areas.

Bandura (1997) states that "self-efficacy measures gain validity from their demonstrated success in predicting the effects specified by the social cognitive theory in which the efficacy factor is embedded" (p. 45). However, there also needs to be proof that the self-efficacy instrument is measuring what it is supposed to be measuring (Bandura, 1997).

Self-Efficacy

Bandura's (1997) theory of self-efficacy was the theoretical framework for this study. His self-efficacy theory doesn't measure the skills one already possesses, but instead measures one's beliefs about what one can accomplish in different conditions with whatever skills one has at their disposal (Bandura, 1997). He believes teacher self-efficacy is influenced by mastery experiences, vicarious experiences, and social persuasion. If a teacher has a high level of self-efficacy he/she can also have a profound effect on the motivation and achievement of students (Caprara, Barbaraneli, Steca, &

Malone, 2006; Chacón, 2005; Chong, Klassen, Huan, Wong, & Kates, 2010; Hoy & Spero, 2005).

The purpose of this study was to determine if particular subject areas engender a higher level of ELL teaching self-efficacy for middle school teachers.

The following research questions were created to guide this research study:

- 1) Does the factor structure of the modified scale reflect the original factor structure of the *TSES* survey?
- 2) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for ELL student engagement, as measured by the modified version of Tschannen-Moran & Hoy's (2001) *Teachers' Sense of Efficacy Scale*?
- 3) Is there a relationship between middle school subject area teaching and self-reported levels of teacher self-efficacy for instructional practices, as measured by the modified version of Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale*?
- 4) What are middle school teachers' perceptions of ELL student engagement?
- 5) What instructional strategies do middle school subject area teachers currently utilize to help them to work with ELLs?

An explanatory sequential mixed methods design with a QUAN-qual model was chosen to guide my research study. The qualitative data would supplement the findings of quantitative data to create a deeper understanding (Creswell, 2014). For the quantitative

part of the study, Tschannen-Moran and Hoy's (2001) *Teachers' Sense of Efficacy Scale* was modified to reflect ELLs, and was distributed to middle school teachers.

A total of 99 subject area teachers participated in the *TSES* survey. The Statistical Package of the Social Sciences (SPSS) was used to analyze the survey data. To answer research question one, I conducted a factor analysis of the 16 items within the subscales of *Efficacy in Student Engagement* and *Efficacy in Instructional Practices* that were selected for the survey in order to interpret how participants were responding to the questions. Principle axis factoring and Oblimin with Kaiser Normalization were used to measure how the factors were loading. The factors were found to have high reliabilities because both had Cronbach's $\alpha > .8$ (Table 4.4).

An analysis of variance (ANOVA) was used to answer research questions two and three because there were more than two groups being analyzed. The dependent variable for ANOVA 1 was student engagement while the dependent variable for ANOVA 2 was instructional practices. The independent variables were the four subject areas of ELA, social studies, math and science. I used an ANOVA to determine if there was a statistically significant difference (at $p < .05$) between the self-efficacy of math, ELA, science and social studies teachers in ELL student engagement and instructional practices.

The qualitative phase of the study included the open-ended questions from the survey as well as semi-structured participant interviews. Twenty interviews were completed. However, only eight participant interviews with two from each subject area

were chosen for further analysis based on criteria that I created. The criteria I used for selecting the interview participants included:

- Teachers taught middle school math, ELA, science or social studies;
- The number of years they had been teaching (one teacher with a high number of years and one teacher with a low number of years);
- The number of English language learners they taught;
- Any uniqueness of their teaching environment;
- The richness of conversation and degree of wealth of information given during the interview;
- The district in South Carolina where the participant taught;
- The sex of the participant.

Four themes were created before analysis of the data began based upon the interview questions. These themes included:

- 1) Teacher differentiation of instruction for ELLs
- 2) Instructional strategies used by teachers for ELLs
- 3) Discussion strategies and communication implemented by teachers for ELLs
- 4) School support and teacher preparation to work with ELLs

The interviews were transcribed and analyzed. Upon completion of the coding, a second reviewer also coded the data in order to have inter-rater reliability of at least 80% between coders.

My quantitative analysis of qualitative participants' self-efficacy scores supported the findings of the quantitative research (Table 4.6). Rhonda was the only participant

with a higher score in engagement than instructional practices. All of the other seven participants had an overall score higher than or equal to engagement, thereby; demonstrating that instructional practices had an overall higher level of significance for the majority of participants in both the survey and the interviews.

Methodological triangulation of the data was conducted through the use of both quantitative and qualitative methods, and I was able to gain a convergence of the data through multiple sources to find common themes and categories (Creswell & Miller, 2000). This was completed through the use of a survey and then follow-up interviews of the same participants. Findings from both methods were analyzed, and I determined that the findings from the survey were supported by the interview results. This was done to further enhance the validity of the research study.

Conclusions

The *TSES* survey provided a starting point for my study on middle school teacher self-efficacy. The results of the survey show that South Carolina middle school teachers have varying levels of self-efficacy when it comes to teaching ELL students. A total of 70% of the teachers surveyed said that they had less than five hours of ESL professional development. Over 65% of participants had no ESL coursework for teachers.

In order to gain a more in-depth understanding of how individual teachers viewed their self-efficacy in teaching ELLs I added a qualitative component. The qualitative part of my study included interviews of volunteers who had participated in the survey, and the use of their answers to the open-ended questions that were part of the survey.

A limited number of studies have focused on ELLs and middle school subject area teachers. English as a Second Language professional development and educational TESOL degree programs are limited in South Carolina. Teachers' have developed their own ESL strategies, and have tried to find what works best for them with their ELL students. However, I found that South Carolina teachers have limited resources for teaching ELLs, which could have a detrimental effect on their self-efficacy.

There were not statistically significant findings for student engagement and limited statistical significance for instructional practices. Therefore, more research is needed to achieve statistically significant findings. A larger sample size may have provided significant results. However, my research does suggest that subject area teachers would like more instruction in how to teach ELL students. The education of ELLs needs to be improved, and that starts with teachers. More successful teaching experiences for all teachers could create higher teacher self-efficacy and a more positive school experience for ELL students.

Quantitative Findings

The ANOVA that I used to analyze the results for student engagement showed $p = .067$. Thus, it was not statistically significant, and the null hypothesis was accepted. Although student engagement did not have statistically significant results, each of the interview participants had strategies that they used to try engage their ELL students in class discussions. They also tried to motivate their ELL students in order to improve their engagement in the classroom.

Instructional practices showed $p = .030$, which indicates a statistically significant finding; thus the null hypothesis was rejected. I wanted to determine the reason for the statistically significant finding, so I ran a post hoc Tukey HSD Range test. The post hoc test revealed $p=.039$, which showed a relationship between ELA and social studies teachers' self-efficacy. However, upon further analysis of the data, I believe that the relationship between ELA and social studies may be due to the disparity in the response rates of the two subject area groups. A total of 39 ELA participants took the *TSES* survey while only 13 social studies middle school teachers participated in the survey. These differences may have created a false positive in the results. Another possible reason for the difference in self-efficacy with instructional practices may be that both ELA and social studies teachers teach classes that are language intensive, which may require them to develop more strategies to make language clear for both PELS and ELL students. ELA teachers also have a background in grammar and language usage that could be an asset to ELL students. Social studies teachers have a background in culture and language, which could make their classes more inclusive of ELLs and their cultural and linguistic backgrounds.

Qualitative Findings

The qualitative findings of this study are specific to eight middle school subject area teachers in South Carolina who volunteered to participate. My findings show the diverse teaching experiences of this particular group of teachers.

The teachers whom I interviewed identified the use of many strategies correlating with the themes I developed prior to analyzing the study data: *instruction, differentiation,*

discussion/communication, and *school support*. For example, diverse rubrics, think-pair-share, and making content relatable to their ELL students were just a few examples of their strategies. Communication with the ESL teacher was a common occurrence by participants, e-mail being the most common form of communication. For many participants school support for subject area teachers was limited. The ESL teacher was the main source of support, with little to no professional development to assist subject area teachers in learning how to best instruct their ELL students, or what strategies would be helpful to them. More than half of teachers who took the original survey had no ESL coursework in college. This fact was also reflected by the eight participants who were interviewed. A total of 50% of interview participants had no previous ESL coursework completed, while 63% had less than 5 hours of ESL professional development. My study also revealed a consensus among participants that there is a definite desire for increased professional development on ESL strategies that could be applied in their classrooms.

I decided to calculate the self-efficacy scores from the surveys of my eight interview participants to determine whether their results would reflect the findings of my other survey participants. I found that all but one participant had equal or higher scores in instructional practices over student engagement. This reinforced my belief that I had a representative sample from the larger group of participants.

Limitations

The current research study is unable to generalize its findings to the greater population of the United States due to the small sample size. Also, because I analyzed data from only four subject areas in middle school, the data are limited. Another

limitation is the use of self-reporting by participants for the survey and the interviews. Other sources were not used to verify the veracity of the statements made by participants.

This study will not be useful in changing teacher self-efficacy when working with ELLs because it has only evaluated the data as they were presented, and does not offer strategies for increasing self-efficacy. This study was developed to investigate the current beliefs and level of self-efficacy of subject area teachers of middle school ELLs in South Carolina. Future studies may be able to address how teachers' self-efficacy when working with ELLs can be improved.

A further limitation of this study is the relatively small sample of participant survey responses and participant interviews. I was dependent on teacher volunteers to take the survey and participate in the interview. Moreover, a very limited number of teachers of color volunteered to take the survey and be interviewed. Therefore, mainly White participants participated. This finding was further supported by the literature in which researchers also found that the majority of teachers are White, middle-class women with teachers of color being in the minority (Darling-Hammond & Bransford, 2005; Rodríguez & Kitchen, 2005). Another factor was the timing of the interviews (spring instead of fall), which could have caused questions to be answered differently. Questions may have been answered differently in the first half of the school year rather than in the second half of the school year, though it is more likely that the later answers more accurately reflect the true experiences of the interviewees.

Implications

This research adds to the literature on middle school teacher self-efficacy and ELLs. The findings from this study show that middle school ELA and social studies teacher participants have a higher level of self-efficacy with instructional practices for ELLs with no significant findings found for student engagement of ELLs. Although this study cannot be generalized to the larger population due to its small sample size, the qualitative data still give insight into what some middle school teachers believe about their own abilities, as well as recognizing that they need to become more effective teachers of this unique population of students.

Another possible implication is a need for teacher preparation programs to focus on language and ELL students. South Carolina teachers need to receive further professional development and coursework on how to teach ELL students. If teachers do not receive additional education in ESL, they will remain underprepared to teach their ELL students.

Future Research

Further research is needed to discover more significant findings about the self-efficacy of teachers with ELL students. The inclusion of a larger sample size of middle school teachers, elementary and/or high school teachers could be beneficial in a future study. A multi-state research project could also allow for a larger sample size and a broader perspective of subject area teachers. The perspectives of ESL teachers might also be useful for a future research study because of the insights that they would bring to the research about ELL students. A study on increased ESL professional development and its

effects on teacher self-efficacy could also be beneficial to the field of education. Another study might include the use of my modified version of the *TSES* instrument to see whether they achieve the same results. More research also needs to be done on what school districts and schools are doing to support their subject area teachers in learning to teach ELL students.

The mixed methods study that I conducted gave me insights into a group of middle school subject area teachers as well as a closer look at small group of individual middle school teachers. However, a different methodological approach might also supply useful data with a different perspective on teacher self-efficacy and ELLs.

My findings on subject area teacher self-efficacy when teaching ELLs show that more research is needed in the field of self-efficacy and subject area teachers with ELL students. The qualitative part of my study found that many of the teachers had limited avenues for learning how to teach ELLs, therefore, limiting their self-efficacy with teaching ELLs. To increase the self-efficacy of teachers they must be supplied with ESL tools and strategies that will help them to become more confident in their ability to teach ELL students.

As the ELL population continues to grow and globalization increases, teachers will need to be better prepared to help these students to be academically successful. ELLs require extra assistance in learning English proficiently as well as content area subject matter such as math, science, ELA, and social studies. However, without the proper tools to help teachers to teach, many ELL students may not receive the education they need to be successful in society, therefore, never reaching their full potential.

Increased research is necessary to study the growing population of ELL students in the US, and how to assist the teachers who instruct them. These studies are necessary not only to meet the requirements set by the Supreme Court for ELL education, but also to foster improvement in the general education of ELLs, while creating more successful teaching experiences for all teachers, and thus higher teacher self-efficacy.

APPENDICES

APPENDIX A

CLEMSON IRB APPROVAL

IRB2015-419 Approval for Does Subject Area Taught Affect the Self-efficacy

Dear Dr. Medford,

The Clemson University Institutional Review Board (IRB) reviewed the protocol identified above using exempt review procedures and a determination was made on **January 11, 2016** that the proposed activities involving human participants qualify as **Exempt under category B1** based on federal regulations 45 CFR 46. You initially submitted an expedited application, but the reviewer determined that it qualified for exemption. **Your protocol will expire on September 30, 2016.**

The expiration date indicated above was based on the completion date you entered on the IRB application. If an extension is necessary, the PI should submit an Exempt Protocol Extension Request form, <http://www.clemson.edu/research/compliance/irb/forms.html>, at least three weeks before the expiration date. Please refer to our website for more information on the extension procedures, <http://www.clemson.edu/research/compliance/irb/guidance/reviewprocess.html>.

No change in this approved research protocol can be initiated without the IRB's approval. This includes any proposed revisions or amendments to the protocol or consent form. Any unanticipated problems involving risk to subjects, any complications, and/or any adverse events must be reported to the Office of Research Compliance immediately. All team members are required to review the IRB policies on "Responsibilities of Principal Investigators" and "Responsibilities of Research Team Members" available at <http://www.clemson.edu/research/compliance/irb/regulations.html>.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact us if you have any questions and use the IRB number and title in all communications regarding this study.

Sincerely,

Elizabeth

*B. Elizabeth Chapman '03, MA, CACII
IRB Coordinator
Clemson University
Office of Research Compliance
Institutional Review Board (IRB)
223 Brackett Hall*

APPENDIX B

INFORMED CONSENT FORM

Information about Being in a Research Study
Clemson University

DOES SUBJECT AREA TAUGHT AFFECT THE SELF-EFFICACY OF MIDDLE SCHOOL TEACHERS WHO TEACH ENGLISH LANGUAGE LEARNERS?

Description of the Study and Your Part in It

Dr. Lienne Medford and Tracy Butler are inviting you to take part in a research study. Dr. Medford is an Associate Professor of Middle Grades Education and MAT coordinator at Clemson University. Tracy Butler is a graduate student at Clemson University, running this study with the help of Dr. Medford. The purpose of this research is to discover whether certain content subject areas lend themselves to a higher level of self-efficacy for middle school teachers in South Carolina with regard to teaching English language learners.

Your part in the study will be to take an online survey about teacher self-efficacy. Furthermore, if you're willing to volunteer to do an online interview after completing the survey it will give the researchers a more in-depth view of teacher self-efficacy and English language learners. The interview will be audio-recorded with your permission.

It will take you about 15 minutes to complete the online survey for this study. If you volunteer to be interviewed it should take less than an hour.

Risks and Discomforts

We do not know of any risks or discomforts to you in this research study.

Possible Benefits

We do not know of any way in which participants would benefit directly from taking part in this study other than winning a raffle prize. However, this research may help to broaden understanding about how prepared middle school teachers believe they are to teach English language learners. This information could help other researchers, teachers and administrators to consider either doing their own research to improve their teaching practice, or possibly contribute to making changes in the way middle school teachers are prepared to work with English language learners.

Incentives

If you supply your e-mail at the end of the survey, you will be entered into a drawing for a gift card worth \$25.

Protection of Privacy and Confidentiality

We will do everything we can to protect the privacy and confidentiality of participants. We will not tell anybody outside of the research team that participants were in my study or what information we collected about them. We will keep all documentation in a secure location where only the researcher has access to the information. In any publications of this study, we will use a pseudonym instead of participants real names, and we will not disclose any discriminating information about their school or district of employment.

Choosing to Be in the Study

You do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time. You will not be punished in any way if you decide not to be in the study or to stop taking part in the study.

Contact Information

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Lienne Medford at Clemson University at 864-250-8891.

If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-0636 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC's toll-free number, 866-297-3071.

Consent

I have read this form and have been allowed to ask any questions I might have. I agree to take part in this study.

Participant's signature: _____ Date: _____

A copy of this form will be given to you.

APPENDIX C

RESEARCHER-DEVELOPED TEACHER BACKGROUND QUESTIONNAIRE

Directions: Please answer the following questions about your personal and professional background. The information obtained from your answers will only be used to summarize the distribution data of participating teachers. For this survey, English language learners will be defined as students for whom English is not their first language. The acronym ELLs will be used in place of English language learners.

Please check the appropriate box.

1. Gender: Male Female
2. What is your age? 21-30 31-40 41-50 51-60 61+
3. Race/ Ethnicity: Asian Black Hispanic/Latino White
 Other I wish to not answer this question
4. Is English your first language? Yes No
5. Highest degree earned: *Please check all that apply*
 Bachelor's Degree Master's Degree Ph.D./Ed.D.
 Other (Please specify)_____
6. How many years have you been teaching?_____
7. Area of certification: Early Childhood Elementary Education Middle Level Education Secondary Education Special Education
 Other (Please specify)_____
8. In which of the following area(s) are you currently teaching?
Please check all that apply
 English (ELLA) Science Social Studies Mathematics
 Related Arts (e.g., Music, Art, PE) Other (Please specify)_____

9. What grade-level(s) are you currently teaching? *Please check all that apply*

Sixth Grade Seventh Grade Eighth Grade Other _____

10. Is your school a Title I school? Yes No

11. For how many students in your classes is English not their first language? _____

12. How many years have you worked with English language learners (ELLs)? _____

13. Are you proficient in a foreign language? Yes No

If yes, which language(s): _____

14. Have you ever taken any college courses on teaching ELLs?

None 1 course 2 courses 3 courses 4 courses 5+ courses

15. How many hours of professional development have you received on how to teach

ELLs? _____

16. Have you traveled outside of the United States to a non-English speaking country?

Yes No If yes, where have you traveled: _____

17. Do you think your experience traveling outside of the United States has helped you in

teaching ELLs? Yes No Not applicable

APPENDIX D

RESEARCHER MODIFIED TEACHER SELF-EFFICACY SCALE

(Original Instrument by Tschannen-Moran and Hoy)

Adapted Teachers' Sense of Efficacy Scale (long form)

Directions: This questionnaire is designed to help me to gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential. Your responses should be based on your available resources, and current and past teaching experiences in a K-12 setting.

	Nothing	Very Little	Some	Quite A Bit	A Great Deal				
1. How much can you do to get through to the most difficult English language learners (ELLs) in your classroom?	1	2	3	4	5	6	7	8	9
2. How much can you do to help your ELLs think critically?	1	2	3	4	5	6	7	8	9
3. How much can you do to motivate ELLs who show low interest in schoolwork?	1	2	3	4	5	6	7	8	9
4. How much can you do to get ELLs to believe they can do well in schoolwork?	1	2	3	4	5	6	7	8	9
5. How well can you respond to difficult questions from your ELLs?	1	2	3	4	5	6	7	8	9
6. How much can you do to help your English language learners' value learning?	1	2	3	4	5	6	7	8	9
7. How much can you gauge English language learners' comprehension of what you have taught?	1	2	3	4	5	6	7	8	9

	Nothing	Very Little	Some	Quite A Bit	A Great Deal				
8. To what extent can you craft good questions for your ELLs?	1	2	3	4	5	6	7	8	9
9. How much can you do to foster ELLs creativity?	1	2	3	4	5	6	7	8	9
10. How much can you do to improve the understanding of an ELL who is failing?	1	2	3	4	5	6	7	8	9
11. How much can you do to adjust your lessons to the proper level for individual ELL students?	1	2	3	4	5	6	7	8	9
12. How much are you able to use a variety of assessment strategies for ELLs?	1	2	3	4	5	6	7	8	9
13. To what extent can you provide an alternative explanation or an example when ELL students are confused?	1	2	3	4	5	6	7	8	9
14. How much can you assist families of ELLs in helping their children to do well in school?	1	2	3	4	5	6	7	8	9
15. How well can you implement alternative strategies with ELLs in your classroom?	1	2	3	4	5	6	7	8	9
16. How well can you provide appropriate challenges for very capable ELL students?	1	2	3	4	5	6	7	8	9
17. How well does your subject area knowledge help you in teaching ELLs?	1	2	3	4	5	6	7	8	9
18. How well are you able to provide language support to ELLs?	1	2	3	4	5	6	7	8	9

	Nothing	Very Little	Some	Quite A Bit	A Great Deal				
19. How well are you able to integrate the cultural backgrounds of ELLs into your classroom?	1	2	3	4	5	6	7	8	9
20. How well are you able to help ELLs to adapt to American culture?	1	2	3	4	5	6	7	8	9
21. How well are you able to adjust lessons to their proper level for ELLs?	1	2	3	4	5	6	7	8	9
22. How well are you able to gauge student comprehension of what you taught?	1	2	3	4	5	6	7	8	9
<u>Open-ended Questions:</u>									
23. How did your teacher education program prepare you to teach ELLs?									
24. What does your current school do to provide teachers with support for teaching ELLs?									
25. What will increase your confidence in your ability to teach English language learners?									
26. What do you think are some important things that teachers of English language learners should know or be able to do?									
27. Do you have any additional comments?									
28. If you're willing to participate in a personal interview please enter your e-mail address: _____									
29. If you'd like to be entered into a raffle for two \$50 gift cards, please enter your e-mail address: _____									

APPENDIX E

INTERVIEW QUESTIONS

1. Did you attend an elementary/middle/secondary school with a diverse population?
2. Did you grow up in a diverse community?
3. How did your teacher education program prepare you to teach ELLs?
4. In which state did you complete your degree?
5. What were your classes like?
6. Did they prepare you well for teaching?
7. Is your current school a language immersion school?
8. What does your current school do to provide teachers with support for teaching ELLs?
9. Are you aware of the different WIDA levels of your ELLs?
10. Are you able to differentiate your instruction based on individual ELL levels?
11. What will increase your confidence in your ability to teach ELLs?
12. What do you think are some important things that teachers of ELLs should know or be able to do?

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