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TENNESSEE ESL TEACHERS' SELF-EFFICACY: A PREDICTIVE
CORRELATIONAL STUDY

by

Anna Carrie Flynt

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctorate of Education

Major: Instructional Design & Technology

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First, I have to acknowledge my family. Without the presence of four Dr. Flynts in my immediate family, I doubt I would have had the wherewithal to pursue my own doctorate degree. Also, I have to thank my Mamaw, Laura Pearl Flynt. She is our matriarch and her contribution to my studies cannot be overstated. The same goes for my father, E. Sutton Flynt. His willingness to read my many, sometimes poorly written, drafts with his keen eye was invaluable and much appreciated. I would also be remiss not to mention the support provided by my mother, Deborah Flynt. She was always interested in my research progress and provided encouragement when I very much needed it. Finally, I have to thank my soon-to-be husband, Mitchell Webb. He has supported me and cheered me on throughout the process of completing my dissertation.

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Abstract

The purpose of this quantitative, predictive correlational study was to examine variables that are correlated with Tennessee K-12 English as a second language teachers' self-efficacy. With the changes stipulated by the *Every Student Succeeds Act* recently approved by the Tennessee Department of Education, there is a need to examine possible factors associated with ESL teachers' self-efficacy because teacher self-efficacy has been linked to teacher effectiveness and, in turn, student learning. Using social cognitive theory as a framework, predictor variables were identified and included route to licensure, practicum hours, presence of mentor, years of teaching experience prior to ESL, years of experience of ESL teaching, and number of ESL teachers at participants' schools. A self-report survey including the validated *Teachers' Sense of Efficacy Scale* was sent to the participants using the Tennessee Teachers of English to Speakers of Other Languages membership listserv. The data collected from the convenience sample was analyzed using standard multiple regression. The six predictor variables were found not to be predictive of Tennessee ESL teachers' self-efficacy and the overall standard multiple regression indicated negligible predictive value. The conclusion drawn from this study is that Tennessee, and perhaps other ESL teachers in the United States, are a unique population of teachers who have other factors specific to their field of teaching that can be predictive of their self-efficacy. Among the possibilities for future research, the author especially recommends the investigation of American ESL teachers' self-efficacy through qualitative methods so data can be collected to identify possible self-efficacy factors directly from the population.

Keywords: English as a second language, social cognitive theory, teacher self-efficacy, predictive correlation, standard multiple regression

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List of Abbreviations

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<i>EFL – English as a foreign language</i>	19
<i>ELL – English language learner</i>	1
<i>EPP – Education Program Provider</i>	3
<i>ESL – English as a second language</i>	1
<i>LEA – Local Education Agency</i>	3
<i>SCT – Social cognitive theory</i>	3
<i>SLT – Social learning theory</i>	12
<i>TDoE – Tennessee Department of Education</i>	1
<i>TSE – Teacher self-efficacy</i>	5
<i>TSES-SF - Teachers’ Sense of Efficacy Scale – Short Form</i>	7

CHAPTER ONE: INTRODUCTION

The English as a second language (ESL) student population is steadily growing in United States' schools and consequently, the linguistic diversity in schools across the nation has seen an influx of English Language Learners (ELLs) (Franco-Fuenmayor, 2013; Tran, 2015). The state of Tennessee is no exception. According to the Tennessee Department of Education (TDoE) (2017b), Tennessee's ELL population has more than doubled in the last 10 years with a total ELL population of 51,154 in 2016. Because of this increase and the gaps in this subgroup's achievement, TDoE has developed the *Every Student Succeeds Act* (ESSA) that incorporates more accountability for both districts and schools to monitor ELLs' academic performance and achievement (Murphy, 2014; TDoE, 2017b). In 2014, Tennessee adopted the "World-class Instructional Design and Assessment" (WIDA) standards and assessment tools for ESL, and more recently, the TDoE published ESSA (TDoE, 2017b). There are two components of ESSA that make this study timely and relevant: (a) "The WIDA framework is designed to raise English language development standards for EL students" (TDoE, 2017b, p.36); and (b) Expected growth standards will be created for ELs to "ensure that Tennessee maintains a trajectory for English language acquisition that enables the most students to exit ESL services in five years or less" (TDoE, 2017b, p.69).

Unfortunately, the number of teachers with knowledge of ESL instruction has not coincided with the growth of the ESL student population (Samson & Collins, 2012). As Rubinstein-Avila and Lee (2014) note, "The lack of teacher preparation...to teach ELLs effectively is widespread" (p.187). Correll's (2016) study exemplifies this. The researcher found that most teachers did not feel adequately prepared for instructing ELLs in Kentucky. There is evidence that one reason for teachers' feeling of lack of preparation relates to the notion

of self-efficacy (Jimenez-Silva, Olson, & Jimenez Hernandez, 2012). Self-efficacy refers to “people's beliefs about their capabilities to produce effects” (Bandura, 1994, p.1). High self-efficacy is associated with confidence and high morale, while low self-efficacy suggests a person does not believe s/he is capable of accomplishing a task or goal. Many teachers of ELLs do not have high self-efficacy. This is unfortunate as there have been some studies that determined higher teacher self-efficacy has a positive effect on student learning outcomes (Klassen & Tze, 2014; López, Scanlan, & Gundrum, 2013; Mojavezi & Tamiz, 2012).

There have been numerous studies that address the preparedness of ESL teachers (Baecher, 2012a; Daniel & Pray, 2016; König, et al. 2016; Peter, Markham, & Frey, 2012; Yazdanpanah, 2015) and the self-efficacy of ESL teachers (Faez, & Valeo, 2012; Jimenez-Silva et al., 2012; Swanson, 2012; Tran, 2015). The majority of these studies found that practical, “real” teaching experiences had the most significant positive influence on self-efficacy and preparing ESL teacher candidates and in-service teachers seeking ESL certification. Many studies on teacher self-efficacy are centered on pre-service and novice teachers (Baecher, 2012a; Knoblauch & Chase, 2015; Tran, 2015) or focus primarily on the assessment of a specific teacher preparation program including Master’s degree programs, add-on endorsement programs, and initial licensure programs (Daniel & Pray, 2016; Peter, et al., 2012; Sachs, Carr, Limb, Choi, & Murphy, 2014). Because of the nature of ESL, many studies on ESL teacher self-efficacy and preparedness are conducted outside of the United States in different educational environments and programs around the world (König, et al. 2016; Peacock, 2001; Yazdanpanah, 2015). There is a dearth of research available on United States’ ESL teachers’ self-efficacy, and, specifically, the variables that can be associated with the teachers’ levels of self-efficacy in their ability to teach ESL.

This study used Bandura's social cognitive theory (SCT) as the theoretical framework. Bandura's social cognitive theory (SCT) defines self-efficacy as "peoples' judgments of their capability to recognize and execute courses of actions required to attain designated types of performance" (Bandura, 1986, p.391). This study examined Tennessee ESL teachers' self-efficacy by exploring variables identified by the factors of self-efficacy outlined by SCT: mastery experiences, vicarious experiences, social persuasion, and physiological factors (Bandura, 1994). Data was collected from across the state and used an emailed questionnaire sent to in-service Tennessee ESL teachers. The data was analyzed using a predictive correlational design by examining the predictive validity of the six predictor variables identified through Bandura's four self-efficacy factors (see Appendix A) with the ESL teachers' self-efficacy as measured by Tschannen-Moran and Woolfolk Hoy's (2001) *Teachers' Sense of Efficacy Scale – Short Form* (TSES-SF).

The results from this study provide a view of the self-efficacy of ESL teachers across the state of Tennessee, and based on the statistical significance, could provide insights in raising ESL teacher self-efficacy. In turn, the results could impact the potential of providing Local Education Agencies (LEAs), Education Program Providers (EPPs), policy makers, and the TDoE with information that can help shape ESL licensure requirements and practices.

Practical Problem

Because many teachers reach the classroom with little or limited knowledge of ESL specific instructional methods, they often struggle when confronted with ELLs in their content classrooms (Rubenstein-Avila & Lee, 2014). Several educational research studies have shown classroom teachers' are underprepared to teach ELLs and, consequently, teachers' self-efficacy is lower in regards to providing instruction to ELLs (Correll, 2016; Durgunoğlu & Hughes,

2010). Karabenick and Clemens Noda (2004) found that teachers with generally high teaching self-efficacy showed only moderate teaching self-efficacy when questioned about instructing ELLs.

This gap in teacher knowledge becomes apparent when looking at the achievement gap between native-English speaking students and ELLs as well. Murphey (2014) examined National Assessment of Educational Progress (NAEP) results and found ELLs lagged behind their English-native classmates by approximately 40 percentage points in math, and this statistic “has been essentially unchanged from 2000-2013” (p. 2). The same difference is true in reading too. With the rising ELL populations, the inclusive atmosphere in most public schools, and teacher accountability being tied to standardized test scores, some classroom teachers choose to take additional graduate courses to gain knowledge and/or an add-on licensure to become licensed to instruct ESL students more effectively.

While investigating comprehensive data on the number of certified ESL teachers in the United States via the add-on licensure programs, Reeves (2010) determined that this has become the primary route in-service ESL teachers have taken to be considered “highly qualified” in ESL by their states. Even though add-on endorsements are the most frequent route teachers take to become certified to teach ESL, there are several other ways to become “highly qualified” to teach ESL in Tennessee. Besides obtaining ESL licensure as an add-on endorsement, there are initial licensure programs at the undergraduate and graduate levels that have been approved by the TDoE (2017b). These programs are designed to be complete programs that include a student teaching/clinical component at program completion. The state of Tennessee has also approved a route that includes only passing the Praxis II ESL licensure exam. This pathway means an individual can be employed by a school district to begin teaching ESL students without any ESL

coursework. This avenue does require the school district to provide an orientation component and to have a partnership with an Education Provider Program (EPP) so ESL courses can be taken while teaching (TDoE, 2016b). This form of the practitioner's licensure is an "on the job training" approach and the individual in question has three years to complete the coursework the EPP requires and pass the Praxis II Professional Learning and Teaching (PLT) exam.

These three routes to Tennessee ESL licensure vary in requirements and protocol. For example, two of these routes do not require student teaching. Mastery and vicarious experiences are two influential factors of self-efficacy, and student teaching provides new ESL teachers with these kinds of experiences (Bandura, 1994). Moulding, Stewart, and Dunmeyer (2014) found that mentorship during student teaching was significantly correlated with pre-service teachers' self-efficacy, while academic achievement and Praxis scores showed no correlation to the candidates' self-efficacy. Along with other variables associated with self-efficacy and ESL teaching in Tennessee, an examination of the self-efficacy of the classroom teachers who complete these various routes to ESL certification could provide insight and feedback for the various ESL certification programs, local educational agencies, and the TDoE.

Problem Statement

The problem is there is a dearth of research focused on determining the possible variables that may be associated with Tennessee K-12 ESL teachers' self-efficacy. Teacher self-efficacy (TSE) is important to understand because numerous studies across educational contexts have found that it is associated with instructional decisions, student motivation, and student achievement (Klassen & Tze, 2014; Malmberg, Hagger, & Webster, 2014; Zee & Koomen, 2016). Polat, Zarecky-Hodge and Schreiber (2016) analyzed NAEP results to predict the trajectories of ELLs and found the achievement gap to be constant or gradually widening in the

United States. In 2015, only 19% of Tennessee ESL students taking the state's standardized English Language Arts assessment scored proficient or advanced (TDoE, 2017a). Because previous research has linked student achievement to TSE, it is important to identify the factors that could be predictive of Tennessee ESL teachers' self-efficacy.

The literature reveals a series of studies that examine ESL preparation (Baecher, 2012a; Daniel, Pray, 2016; König, et al. 2016; Peter et al., 2012) and the self-efficacy of ESL teachers (Faez, F., & Valeo, A., 2012; Jimenez-Silva et al., 2012; Swanson, P., 2012; Tran, Y., 2015). These studies, many done outside of the United States, have examined elements associated with being successful in the ESL classroom. Most notably, Tran (2015) found that teachers who had experienced a significant practicum experience tended to have higher self-efficacy and confidence in their classroom. Couple this finding with the recommendation by Fenner (2016) that ESL teachers need to be lead teachers in the schools in which they work, and this study is clearly relevant and timely.

Bandura's (1994) concept of self-efficacy is the guiding framework in this study. Bandura (1994) identified four factors that influence a person's self-efficacy: mastery experiences, vicarious experiences, social persuasion, and physiological states. Using these four factors, the following six predictor variables have been identified that could predict Tennessee ESL teachers' self-efficacy: route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number ESL teachers at participant's school. Appendix A details each predictor variable in further detail.

Purpose Statement

The purpose of this predictive, correlational study was to identify the associations, if any, between the self-efficacy of K-12 ESL teachers practicing in Tennessee, the criterion variable, and six predictor variables. The predictor variables include: route to ESL licensure, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school. SCT is used as the theoretical framework, and each predictor variable is connected to at least one of the four major factors that influence perceived self-efficacy: mastery experiences, vicarious experience, social persuasion, and physiological state (see Appendix A) (Bandura, 1994).

For the purpose of this study, self-efficacy was defined as the "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1977, p. 3). ESL teacher self-efficacy (criterion variable) was measured using the validated survey, *Teachers' Sense of Efficacy Scale – Short Form* (TSES-SF) (Tschannen-Moran & Woolfolk Hoy, 2001). Additional researcher created survey questions were used to address the predictors.

Research Question

The research and null hypotheses address the linear combination of all the predictor variables and subsequently each predictor variable in relation to the criterion variable.

The research question for this study was the following:

RQ. Can route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school predict K-12 Tennessee ESL teachers' self-

efficacy (the criterion variable) as measured by the TSES-SF (Tschannen-Moran & Woolfolk Hoy, 2001) and self-reported survey?

Research and Null Hypotheses

The research and null hypotheses for this study were the following:

H₁₁. There is a statistically significant, predictive relationship between the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) and K-12 Tennessee ESL teachers' self-efficacy.

H₀₁. There is no statistically significant, predictive relationship between the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience as non-ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) and K-12 Tennessee ESL teachers' self-efficacy.

H₁₂. There is a statistically significant, predictive relationship between the route to ESL certification and K-12 Tennessee ESL teachers' self-efficacy.

H₀₂. There is no statistically significant, predictive relationship between the route to ESL certification and K-12 Tennessee ESL teachers' self-efficacy.

H₁₃. There is a statistically significant, predictive relationship between practicum experience and K-12 Tennessee ESL teachers' self-efficacy.

H₀₃. There is no statistically significant, predictive relationship between practicum experience and K-12 Tennessee ESL teachers' self-efficacy.

H₁₄. There is a statistically significant, predictive relationship between mentoring and K-12 Tennessee ESL teachers' self-efficacy.

H₀₄. There is no statistically significant, predictive relationship between mentoring and K-12 Tennessee ESL teachers' self-efficacy.

H₁₅. There is a statistically significant, predictive relationship between years of teaching experience prior to becoming an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₀₅. There is no statistically significant, predictive relationship between years of teaching experience prior to becoming an ESL teacher, and K-12 Tennessee ESL teachers' self-efficacy.

H₁₆. There is a statistically significant, predictive relationship between the number of years of experience as an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₀₆. There is no statistically significant, predictive relationship between the number of years of experience as an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₁₇. There is a statistically significant, predictive relationship between the number of ESL teachers at participant's school and K-12 Tennessee ESL teachers' self-efficacy.

H₀₇. There is no statistically significant, predictive relationship between the number of ESL teachers at participant's school and K-12 Tennessee ESL teachers' self-efficacy.

Definitions

Add-on endorsement. In Tennessee, add-on endorsements require a limited set of courses and experiences required to become considered "highly qualified" to teach a specific content area and grade level. These are only available for teachers who "hold a valid educator license in Tennessee" (TDoE, 2016b, p.1).

Caseload. This refers to the number of English language learners an ESL teacher teaches. Currently, the maximum caseload an ESL teacher should have in Tennessee is 40 (TDoE, 2016a).

English as a second language (ESL). ESL refers to “programs, instruction, and development of English as a non-native language” (Peregoy & Boyle, 2017, p.5).

English language learners (ELLs). ELL “refer[s] to non-native English speakers who are learning English in school” (Peregoy & Boyle, 2017, p.4).

Mastery experiences. Mastery experiences are experiences that “build a robust belief in one’s personal efficacy...[by] overcoming obstacles through perseverant effort” (Bandura, 1994, p.71).

Mentoring. Refers to “an intense, dyadic relationship in which the mentor furthers the professional and personal development of the protege by providing information, assistance, support and guidance” (Torres-Guzman & Goodwin, 1997, p.1).

Physiological state. This refers to the perception of experienced emotional and physical states and how this can affect self-efficacy (Bandura, 1994).

Self-efficacy. This refers to “people's beliefs about their capabilities to produce effects” (Bandura, 1994, p.1). High self-efficacy suggests a person believes s/he is capable of completing a task or reaching a goal. Low self-efficacy suggests a person has little faith in his/her ability to produce the desired results (Bandura, 1994).

Social persuasion. This comes in the form of verbal persuasion and encouragement that can influence a person’s self-efficacy (Bandura, 1994).

Teacher self-efficacy (TSE). “A teacher’s efficacy belief is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (Tschannen-Moran et al., 2001, p. 783).

Vicarious experiences. These are experiences modeled by social models who are considered equally skilled peers. If one sees the peer succeed, one may have higher self-efficacy when

trying to accomplish the same task; if one sees the peer fail, one may have lower self-efficacy (Bandura, 1994).

CHAPTER TWO: REVIEW OF LITERATURE

Bandura's social cognitive theory (SCT) is the guiding theory of this review of literature. An overview of this theory is provided along with a definition and explanation of one of its main tenets, self-efficacy. Research on the effects of teacher self-efficacy is reviewed and followed by research specifically aimed at TSE in ESL and other language learning classrooms (e.g. English as a Foreign Language). Finally, a rationale supported by the literature is provided for the predictor variables identified for this study.

Theoretical Framework: Social Cognitive Theory

Albert Bandura initially developed social learning theory (SLT) in the 1960s. SLT draws from behaviorism and added the social context of learning from interactions and observation of others (Bandura, 1977; Pajares, 2002). In 1986, Bandura renamed SLT social cognitive theory (SCT) to further define and differentiate the theory in relation to the more prevalent behaviorist theories at the time. SCT emphasizes cognitive variables in social interactions and learning and how these variables affect the behaviors exhibited by the people participating in the interactions (Pajares, 2002). SCT was developed to explain human behavior and learning through an emphasis on the role of self-beliefs rather than solely on external factors (Bandura, 1977, 1989, 1997).

SCT expands on behaviorism, which posits that people simply react to stimuli and reinforcement. While environmental factors are accepted as having influence on behavior, SCT also incorporates cognitive processes and people's ability to self-regulate and self-reflect based on the information they receive and their social experiences. Bandura (1986) posited that there is a triadic reciprocity between cognitive factors, environmental factors, and behavioral factors

that affect human behavior. These factors simultaneously work together to influence people's cognition and behavior through the development of self-efficacy (Bandura, 1986).

Self-Efficacy

One of the core tenets of SCT is self-efficacy. Bandura (1986) defines perceived self-efficacy as “peoples’ judgments of their capability to recognize and execute courses of actions required to attain designated types of performance” (p.391). Self-efficacy can have either positive or negative effects on human performance. Bandura (1994) posited people who believe they can accomplish a goal or task have high self-efficacy. They are more likely to do so because they are willing to initiate behavior and persevere through complications to task completion. Contrastingly, people who have low self-efficacy doubt their ability when approaching a task or goal. They are more likely to falter because of self-doubt, lack of commitment, and inability to focus on how to overcome an obstacle rather than the obstacle itself. Bandura (1994) outlines four processes by which self-efficacy influences behavior (cognitive processes, motivational processes, affective processes, and selection processes) and four factors that influence perceived self-efficacy (mastery experiences, vicarious experience, social persuasion, and physiological state).

Efficacy-Activated Processes

The four efficacy-activated processes demonstrate the effect self-efficacy beliefs can have on human behavior and functioning. The level of self-efficacy one has can positively or negatively affect attitude, motivation, anxiety, and the decision to pursue an opportunity or challenge (Bandura, 1994).

Cognitive processes. According to Bandura (1994), before someone attempts something new or challenging, they formulate a plan of execution in their thoughts. These cognitive

processes can be influenced by self-efficacy. People with high self-efficacy will choose to take on challenges more willingly because they create successful images of themselves completing the task. They are also more likely to persevere through challenges they encounter because they started with a positive outlook and will find tools to achieve the outcome they envisioned.

People with low self-efficacy have the opposite occur in their minds. Self-doubt and envisioning failure increase a person's likelihood of either avoidance or getting off task easily. Bandura (1994) explains, "It is difficult to achieve much while fighting self-doubt" (p.4).

Motivational processes. Motivational processes are closely linked to cognitive processes via forethought and predictions of how events will occur. People with high self-efficacy believe past failures are due to their lack of effort; therefore, they tend to have stronger perseverance and motivation to accomplish a goal. People with low self-efficacy think lack of ability causes their failures. Motivation decreases and their perseverance is weak in the face of adversity (Bandura, 1989).

Affective processes. Peoples' beliefs in their own ability to overcome obstacles and their ability to control their own thinking corresponds with the level of stress/anxiety one feels in difficult situations. High self-efficacy produces a positive outlook and produces positive thoughts. Low self-efficacy causes one to "magnify the severity of possible threats" (Bandura, 1994, p.5) and develop defeatist thought patterns.

Selection processes. As described in the previous three efficacy-activated processes, low self-efficacy causes self-doubt and negative thinking when attempting a new task or trying to accomplish a goal. Selection processes are also heavily dependent upon their self-efficacy. People choose to put themselves in positions in which they think they can succeed. Low self-

efficacy can cause people to avoid situations or decide not to undertake new tasks at all (Bandura, 1989).

Cognitive, motivational, affective, and selection processes are influenced heavily by self-efficacy. These processes are fundamental in how people behave, think, and approach tasks and challenges. Bandura (1994) also outlines four factors that can influence a person's self-efficacy, either positively or negatively.

Factors of Self-Efficacy

The four factors outlined below influence a person's perceived self-efficacy. The four factors are interconnected. They can influence each other and can occur simultaneously.

Mastery experiences. Mastery experiences provide people with opportunities to accomplish difficult tasks. These experiences increase self-efficacy by instilling the belief that one can overcome obstacles and succeed when effort is put forth. If an individual experiences failures and feels incapable of overcoming obstacles, their self-efficacy is undermined. If failures occur prior to establishing positive view of one's capabilities, it becomes more difficult to overcome self-doubt and persevere to master a task or accomplish a goal (Bandura, 1994; Swanson, 2012). Bandura (1994) posited that mastery experiences are “the most effective way of creating a strong sense of efficacy” (p. 2).

Vicarious experiences. Vicarious experiences occur when a person observes others' successes and failures through social models. If a person witnesses a peer whom they consider to be similar in capability and expertise persevere and succeed, confidence in their own ability to complete the task or goal is increased (Bandura, 1994; Pajares, 2012). Conversely, if they see their peer put forth a great amount of effort and still experience failure, this can have a negative effect on one's self-efficacy. It is important to note that the social model, or peer, must be

viewed as similar to one's self for the vicarious experience to have influence on self-efficacy. If the person views the social model as different from her/himself, there will be little to no impact on self-efficacy. The model should be a competent peer who can demonstrate the task or goal the observer aspires to master (Bandura, 1994; Swanson, 2012).

Social persuasion. Social persuasion is used to bolster self-efficacy through verbal support. When a person is encouraged to believe they are capable of accomplishing or mastering a task by another person, self-efficacy can be increased. Social persuasion tends to give people more confidence and helps them overcome obstacles because they have been persuaded to think that they have the means and tools necessary to complete a task or overcome an obstacle. Social persuasion should focus on an individual's improvements rather than using persuasion based on comparing one person to another (Bandura, 1994; Swanson, 2012).

Physiological states. People's mood and somatic state can have an impact on self-efficacy as well. The feeling of nervousness and the fear of failure can often be perceived as vulnerability and lower the person's belief in that they can perform a task successfully (Bandura, 1994). Pajares (2002) noted that individuals have the ability to control their emotions and thinking, to an extent, and having high self-efficacy pinned in the previous three factors can have a positive influence in controlling physiological reactions.

Teacher Self-Efficacy

Teacher self-efficacy research began in the 1970s and was first researched by the Rand Corporation (Armor et al., 1976). TSE research is typically grounded in locus of control (Rotter, 1966) or social cognitive theory (Bandura, 1977). Bandura's (1977) contributions to social cognitive theory, specifically the addition of self-efficacy, had a major influence on TSE research. With the advent of Bandura's 1977 theory of self-efficacy, TSE research has focused

on the “need to differentiate between self-efficacy and outcome expectancies” (Zee & Koomen, 2016, p. 984), and it is centered on the idea that self-efficacy is task-specific and can vary between classrooms, content areas, students, and other environmental variables. Tschannen-Moran and Woolfolk Hoy (2001) define TSE as “a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (p.783). In the last 40 years of research, TSE has been found to influence the quality of classroom environments and student and teacher outcomes (Tschannen-Moran & Woolfolk Hoy, 1998, 2001; Zee & Koomen, 2016).

Benefits of High Teacher Self-Efficacy

Numerous studies have examined the association of TSE and student achievement measures and student motivation (Guo, McDonald Connor, Roehring, & Morrison, 2012; Khan, 2012; Mohamadi & Asadzadeh, 2012; Ross, 1994; Thoonen, Slegers, Oort, Peetsma, & Geijsel, 2011; Woolfolk Hoy & Davis, 2005). These studies found high teacher self-efficacy has a positive influence on student achievement outcomes and student motivation. The increased student achievement measures are primarily attributed to TSE indirectly as self-efficacy has an influence on teachers’ planning, teaching, reflecting, and conceptualization of instruction. TSE is commonly attributed to student achievement gains through the indirect consequence of higher quality instruction (Guo et al., 2012; Holzberger, Phillip, & Kunter, 2013; Woolfolk Hoy & Davis, 2005; Wyatt, 2016).

Zee and Koomen (2016) conducted a literature review on studies investigating TSE in various domains of the classroom. The reviewers found “teachers with high general self-efficacy have been demonstrated to perceive the implementation of new instructional methods as more important and congruent with their own practices” (p.991). This conclusion coincides with

Bandura's definition of self-efficacy, the efficacy-activated processes, and the four self-efficacy factors that postulate people who believe they can accomplish a new task are more likely to initiate it. Furthermore, Holzberger, Philipp, and Kunter (2013) conducted a longitudinal study focusing on the TSE levels of 155 in-service teachers and their instructional quality over a one-year span. Holzberger et al. (2013) concluded TSE has a clear connection to instructional quality, and TSE levels fluctuate throughout the school year.

Additionally, research has shown that teachers benefit from having high TSE as well. Research on both novice and experienced teachers have concluded that having high TSE decreased job stress and increased job satisfaction (Barouch Gilbert, Adesope, & Schroeder, 2013; Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Klassen, Usher, Bong, 2010; von der Embse, Sandilos, Pendegast, & Mankin, 2016). The findings from these studies correspond with Bandura's (1994) position that self-efficacy impacts "choices, level of motivation, quality of functioning, resilience to adversity and vulnerability to stress" (p.15). For example, von der Embse et al. (2016) investigated the relationship between stress, self-efficacy, and job satisfaction of 1242 public school teachers in a southern state in the United States. The researchers utilized The Educator Test Stress Inventory (von der Embse, Kilgus, Solomon, Bowler, & Curtiss, 2015) and the Teachers' Sense of Self Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001) in a survey to measure the variables. The researchers found "all three domains of teaching efficacy (classroom management, instructional practices, student engagement) were positively related to job satisfaction" (von der Embse et al., 2016, p.316). These findings are consistent with previous research conducted on teacher job satisfaction in relation to TSE (Klassen & Chui, 2010; Savaş, Bozgeyik, & Eser, 2014; Tschannen-Moran & Woolfolk Hoy, 2001).

Teacher Self-Efficacy in English as a Second Language

As noted in the overview of TSE literature, TSE has been investigated frequently and in a variety of educational environments by researchers. There are also TSE studies that are domain specific and the field of language learning is no exception. Because of the international nature of language learning, English language teachers and learners are researched around the world in varying contexts (Raooft, Tan, & Chan, 2012; Rashidi & Moghadam, 2014).

Prior to discussing TSE in ESL, it is important to note the difference between English as a *second* language (ESL) and English as a *foreign* language (EFL). ESL programs are utilized for multilingual groups of students who are residing in a country where English is the native language (Nayar, 1997). In K-12 ESL programs, academic English instruction is a primary focus to help ELLs meet the demands of their content classrooms (Peregoy & Boyle, 2017). In contrast, EFL is taught to usually monolingual groups of students in a country in which English is not the primary language (Nayar, 1997, Rose, 1999). In EFL classrooms, students experience classes that are “similar to what Americans with English as their first language would experience when they set out to learn Spanish, German, or French with an instructor” (Corelanguages, 2015, para. 3). For consistency and relevance, research investigating TSE and ESL was reviewed.

Research on Teacher Self-Efficacy and ESL

The majority of TSE studies in the field of ESL investigate preservice and novice ESL teachers’ self-efficacy upon completing ESL educational programs (Faez & Valeo, 2012; Jimenez-Silva et al., 2012; Swanson, 2012; Tran, 2015). Faez and Valeo (2012) surveyed novice ESL teachers who completed a typical Canadian Teachers of English to Speakers of Other Languages (TESOL) program of 250 instructional hours. The researchers found teachers’ self-efficacy varied greatly between different classroom components (e.g. high self-efficacy in

classroom management and low self-efficacy in ability to teach ESL literacy). In the same vein, Tran (2015), conducted research on TSE by surveying teachers with fewer than five years of teaching experience in Texas, a state with one of the highest ESL student populations. The researcher found teachers who had completed an ESL licensure program had higher self-efficacy in instructing ELLs than teachers who had no ESL certification. Additionally, the research suggested “while in-service experiences were important for teachers, infused ESL coursework during initial licensure was most profound in developing high efficacy ratings for working with ELLs” (Tran, 2015, p. 39). Swanson’s (2012) findings are consistent with Tran’s (2015). Swanson’s (2012) study assessed the self-efficacy of 1065 Canadian and United States second and foreign language teachers. The results showed “significance differences...between those who were granted approved licensure by a government entity and those who were working under provisional certification” (Swanson, 2012, p. 92).

There are also several studies that aim to measure the preparedness of ESL educators to assess specific ESL teacher preparation programs (Daniel & Pray, 2016; Jimenez-Silva et al., 2012; Peter, et al., 2012; Sachs et al., 2014). These studies focused on the endorsement programs of in-service classroom teachers and found that these teachers’ attitudes about ELLs and/or instructional practices were determined in large part by the coursework they completed in the various programs.

There are also white papers challenging some of the qualities of existing programs designed for in-service classroom teachers to become certified to teach ESL (Baecher, 2012b; Reeves, 2010). These researchers note these programs are widespread, abbreviated in nature, and usually do not require a practicum experience. Furthermore, Reeves (2010) points out that beginning and novice teachers are less likely to be prepared when exiting these programs

because they lack the experiences usually required in teacher preparation programs. Baecher (2012b) goes as far to say “well-integrated clinical experiences are the exception rather than the norm” (p. 538) in many ESL teacher preparation programs.

After reviewing the available literature, no studies were found that address the factors that specifically predict ESL teachers’ self-efficacy beyond their preparation program. However, factors influencing TSE have been studied in various educational contexts around the world. Using SCT’s factors of self-efficacy and existing literature, this proposed study will examine the associations of Tennessee ESL teachers’ self-efficacy with the following predictor variables: route to ESL licensure, practicum experience, mentoring, years of teaching experience prior to teaching ESL, years of teaching ESL, and the number of ESL teachers at participants’ schools. In the next section, literature supporting each of the identified predictor variables will be discussed.

Predictor Variables: Rationale and Connections to Self-Efficacy

A number of variables have been shown to influence and/or predict TSE, most of which can be understood in relationship to Bandura’s (1994) factors. The existing literature guided the identification of the six predictor variables for this study, which is designed to examine their associations with Tennessee ESL teachers’ self-efficacy. This section uses Bandura’s factors to organize the variables and examines the literature supporting the possible significance of each variable.

Variables Connected to Mastery Experiences and Vicarious Experiences

Bandura (1994) states, “The most effective way of creating a strong sense of efficacy is through mastery experiences” (p.2). Mastery experiences provide opportunities for people to be successful in completing a task; this gives them confidence and belief that they are capable when

challenges arise. Malinen et al. (2013) researched the sources of TSE in teachers who taught disabled students in China, France, and South Africa. The researchers found the teachers' previous experiences teaching disabled learners, both in regular and special education classrooms, had the strongest explanatory power of the participants' TSE across all three countries. Malinen et al. (2013) stated the "cross-culturally shared finding is well in unison with the theory of self-efficacy in which mastery experiences are assumed to be the strongest source of efficacy" (p. 41).

Vicarious experiences also influence self-efficacy. Vicarious experiences commonly provide modeling from a peer and can encourage individuals to attempt new tasks (Bandura, 1994). Bautista (2011) explored the self-efficacy of 44 pre-service teachers after completing education courses that purposefully integrated mastery and vicarious experiences. This mixed-methods study found that vicarious experiences through watching videos of effective teachers and completing assignments that planned for future teaching experiences were the most significant vicarious experiences that influenced participants' TSE.

There are several variables identified for this study that could influence Tennessee ESL teachers' mastery experiences and vicarious experiences, and in turn, predict their TSE.

Route to licensure. Alternative certification programs have been used to address teacher shortages in various subject areas in the United States (Fox & Peters, 2013). These programs tend to be abbreviated and many do not require student teaching experiences (Darling-Hammond, 2010). There have been conflicting conclusions reported from various studies on the preparedness and self-efficacy of teachers who completed alternative certification programs. Cochran-Smith and Villegas (2015) conducted a meta analysis including 1500 studies published on teacher preparation and certification. The meta analysis indicated that there are mixed results

when comparing traditionally licensed and alternatively licensed teachers. The authors indicate the discrepancies in the results across the studies are primarily due to the great variation in requirements both within and between traditional and alternative certification programs.

Researchers have questioned the quality of abbreviated ESL programs that allow add-on ESL endorsement to in-service teachers (Baecher, 2012b; Reeves, 2010). The researchers emphasized the importance of “real” experience in preparing ESL teachers. There is variability in requirements of ESL teacher preparation programs, and there are three ways to obtain ESL certification in Tennessee: initial licensure (both undergraduate and graduate level), add-on endorsement, and the practitioner’s license (passing the Praxis II) (TDoE, 2016b, 2017b). With the different requirements of the various avenues to licensure, it can be assumed some ESL teachers will have more mastery experiences in their preparation program than others, which could be associated with their TSE. This current study aims to investigate if the different routes to ESL certification are predictive of ESL teachers’ self-efficacy.

Practicums. Practicums/clinical experiences are an avenue to increase teachers’ self-efficacy through mastery experiences as well. Stapleton and Shao (2016) conducted a survey of the requirements of Master of Arts programs in Teaching English to Speakers of Other Languages (MATESOL) programs. These programs are much more rigorous than the add-on licensure programs used for certification because they require more instructional hours and the completion of a thesis or master’s project in ESL pedagogy. The researchers found that in the 146 United States MATSOL programs reviewed, practicums had a frequency rate of 90%. This is a high frequency rate and indicates MATESOL programs see value in the practicum experience. In a study conducted on newly certified ESL teachers, Faez and Valeo (2012) state

the “practicum[s] and ‘real’ teaching experiences were found to be the most influential aspect of the induction programs” (p. 450).

While no comparative comprehensive survey of add-on ESL licensure programs currently exists, the challenges in implementing a practicum in add-on ESL licensure programs are the nature of the abbreviated instructional hours and relatively short duration of the programs (Baecher, 2012b; Reeves, 2010). The presence or absence of a practicum in ESL teachers’ preparation could suggest an association with ESL teachers’ self-efficacy. TDoE (2016a) currently requires a 30-hour practicum for adding a K-12 add-on endorsement in ESL.

Years of teaching experience and years of ESL experience. Klassen and Chui (2010) conducted a TSE study on 1430 in-service teachers in Canada. The researchers found that TSE increased with years of experience up to 23 years. After 23 years of teaching, TSE began to decline. This is in conflict with Bandura’s (1997) claim that self-efficacy stabilizes once it is fully established. Klassen and Chui (2010) suggest that Huberman’s (1989) career stages could explain the rise and fall of TSE in their study. Shoulders and Krei (2015) found similar results in research conducted to examine the self-efficacy of 256 secondary teachers in relation to specific teacher characteristics. Their data analysis revealed a significant mean difference between years of teaching experience and TSE. Specifically, Shoulders and Krei (2015) found that teachers with 15 or more years of experience are more efficacious in instructional practices and classroom management than teachers with fewer than 15 years of teaching experience.

If an in-service teacher obtains certification to teach ESL and moves to an ESL-only classroom, their mastery experiences in previous classrooms could affect their TSE. Additionally, many content teachers have taught ELLs in their regular classrooms and this may have resulted in them collaborating with the ESL teacher(s) at their school. Thus, in-service

content teachers' instruction could be influenced by vicarious experiences through the collaboration and/or co-teaching with ESL teacher(s). Malinen et al. (2013) found that mastery experiences with special student populations in both regular classrooms and specialized classrooms have a significant influence on TSE.

Variables Connected to Social Persuasion

Social persuasion is another factor that can increase self-efficacy (Bandura, 1994). Verbal encouragement and support can help persuade people to believe they have the skills and capabilities to accomplish a task. Phan and Locke's (2015) qualitative study on eight Vietnamese university teachers highlights the importance of social persuasion in relation to TSE. The researchers found social persuasion to be the "most influential source of efficacy information" (p. 77) for the teacher participants. Brannan and Bleistein's (2012) mixed methods study indicated novice ESL teachers' perceived effectiveness is correlated to social support gleaned from coworkers, mentors, and family members. Mentoring and contact with other ESL colleagues could have statistical significance in predicting Tennessee ESL teachers' self-efficacy.

Mentoring. Mentoring programs are one way ESL teachers can build confidence in their ability to teach ELLs. Torres-Guzman and Goodwin (1997) define mentoring as "an intense, dyadic relationship in which the mentor furthers the professional and personal development of the protege by providing information, assistance, support and guidance" (p. 1). Kissau and King (2014) conducted a qualitative study on peer mentoring of teachers completing second language certification being mentored by in-service second language teachers. The researchers found that not only did the mentees benefit from the individualized guidance and support provided by the mentors, but they also appreciated the encouragement and mutual respect present in the mentor-

mentee relationships. The mentors were able to identify with the obstacles the mentees were facing in their second language classrooms, so they were able to provide support and encouragement through social persuasion. Fox and Peters (2013) had similar results in their study investigating 288 novice K-12 teachers' self-efficacy and the association of mentoring programs. Through qualitative coding analysis, Fox and Peters (2013) found that the participants felt mentoring was a positive influence on their ability to be successful in their new profession.

Partnerships between ESL licensure programs and school districts can provide ESL teachers with adept mentors and a supportive professional community (Fenner, 2016). Social persuasion through peer mentoring could be a significant predictor of ESL teachers' self-efficacy (Fox & Peters, 2013; Kissau & King, 2014; Peter et al., 2012).

Number of ESL teachers at participant's school. Research has shown collaboration with colleagues can be associated with TSE (Chong & Kong, 2012; Guo, Justice, Swayer, & Tompkins, 2011; Moolenaar, Slegers, & Daly, 2012; Tschannen-Moran & Woolfolk Hoy, 2006). Guo et al. (2011) found that teacher collaboration was a statistically significant predictor of TSE ($\beta = .405, p = .02, R^2 = .15, p < .05$). Tschannen-Moran and Woolfolk Hoy (2006) performed a hierarchical regression analysis on the responses of 255 teachers. This study showed that novice teachers' self-efficacy is more closely associated with the interpersonal support of colleagues than the teachers' mastery experiences (Tschannen-Moran & Woolfolk-Hoy, 2006).

It is common for Tennessee schools to have only one ESL teacher because there are 40 or fewer ELLs attending the school. While this is prevalent in many areas in Tennessee, there are also multiple high ESL population schools, primarily found in Tennessee's larger cities that employ multiple ESL teachers to serve the large ESL student population. Having multiple ESL

teachers at one's school could influence ESL teachers' level of self-efficacy based on previous research indicating the importance of teacher collaboration and Bandura's (1994) self-efficacy factor of social persuasion.

Variables Connected to Physiological States

Bandura's (1994) factor of physiological states refers to the emotional and somatic states a person experiences while in a stressful situation and how they are capable of dealing with their feelings and nervousness. People with high self-efficacy are more likely to view emotional arousal during stressful situations as an "energizing facilitator of performance" (Bandura, 1994, p.3) while those who have low self-efficacy are often debilitated by the stress they feel emotionally and physically (e.g. sweaty palms). Bandura (1977) stated, "Anxiety arousal to threats is...diminished by modeling, and is even more thoroughly eliminated by experienced mastery achieved through participant modeling" (p.199). With this proposition in mind, the following predictor variables have been identified as associated with ESL teachers' physiological states: practicum experience, mentoring, years of teaching experience, and years of ESL teaching experience. Each of these variables are directly associated with modeling, vicarious experiences, and mastery experiences, and this study proposes to determine their associations with the level of self-efficacy of participants.

Summary

This chapter has reviewed the literature related to self-efficacy and its influence on ESL teachers. This review used Bandura's (1994) SCT as a basis for examining ESL teachers' self-efficacy as influenced by mastery experiences, vicarious experience, social persuasion, and physiological state. The literature suggests the level of TSE can influence attitude, effort, confidence and performance in classrooms. This chapter also noted how ESL licensure is

obtained in the state of Tennessee and related these avenues to the four self-efficacy activated processes, mastery experiences, vicarious experiences, social persuasion, and physiological states. These four factors have been shown to influence TSE in educational research, and the six predictor variables for this study were identified through existing research performed on TSE and Bandura's (1994) SCT. This review found limited, if any, research about the influence of the six identified predictors impact on ESL teacher self-efficacy in the United States because much of the research was conducted outside the United States and/or on other subject areas. In sum, the proposed study, based on the literature, has the potential of informing ESL teacher preparation programs in Tennessee because of the lack of research in the area of ESL teacher self-efficacy.

The next chapter details how the study determined which of the six predictor variables impact ESL teachers' self-efficacy. In addition, the chapter will delineate how the data were collected and analyzed to answer the research questions.

CHAPTER THREE: METHODOLOGY

This quantitative study examined the self-efficacy of individuals who obtain ESL licensure in the state of Tennessee. The purpose of the study was to not only to determine which, if any, of the examined predictor variables (e.g. route to ESL licensure, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at a school) have a significant predictive association with ESL teacher self-efficacy. The findings of the study could be used to inform LEAs, EPPs, policy makers, and the TDoE about the associations, or the lack thereof, these variables have on the self-efficacy of the teachers. The participants were a non-random sampling of in-service, licensed, Tennessee ESL teachers. Data on each variable were collected via a survey disseminated through email, and the data received was analyzed using standard multiple regression. The overall research question was:

RQ: Can route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school predict K-12 Tennessee ESL teachers' self-efficacy (the criterion variable) as measured by the TSES-SF (Tschannen-Moran & Woolfolk Hoy, 2001)?

The following research and null hypotheses will be addressed to complete the analysis:

H₁1. There is a statistically significant, predictive relationship between the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) and K-12 Tennessee ESL teachers' self-efficacy.

H₀1. There is no statistically significant, predictive relationship between the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience as non-ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) and K-12 Tennessee ESL teachers' self-efficacy.

H₁2. There is a statistically significant, predictive relationship between the route to ESL certification and K-12 Tennessee ESL teachers' self-efficacy.

H₀2. There is no statistically significant, predictive relationship between the route to ESL certification and K-12 Tennessee ESL teachers' self-efficacy.

H₁3. There is a statistically significant, predictive relationship between practicum experience and K-12 Tennessee ESL teachers' self-efficacy.

H₀3. There is no statistically significant, predictive relationship between practicum experience and K-12 Tennessee ESL teachers' self-efficacy.

H₁4. There is a statistically significant, predictive relationship between mentoring and K-12 Tennessee ESL teachers' self-efficacy.

H₀4. There is no statistically significant, predictive relationship between mentoring and K-12 Tennessee ESL teachers' self-efficacy.

H₁5. There is a statistically significant, predictive relationship between years of teaching experience prior to becoming an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₀5. There is no statistically significant, predictive relationship between years of teaching experience prior to becoming an ESL teacher, and K-12 Tennessee ESL teachers' self-efficacy.

H₁6. There is a statistically significant, predictive relationship between the number of years of experience as an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₀₆. There is no statistically significant, predictive relationship between the number of years of experience as an ESL teacher and K-12 Tennessee ESL teachers' self-efficacy.

H₁₇. There is a statistically significant, predictive relationship between the number of ESL teachers at participant's school and K-12 Tennessee ESL teachers' self-efficacy.

H₀₇. There is no statistically significant, predictive relationship between the number of ESL teachers at participant's school and K-12 Tennessee ESL teachers' self-efficacy.

Method and Design

This study utilized a predictive correlational research design to investigate the associations between the six predictor variables (route to ESL licensure, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at a school) and the criterion variable (ESL teachers' self-efficacy). According to Creswell (2014), correlational research designs should be used when relating "two or more variables to see if they influence each other" (p.339).

Appropriateness for this Study

The predictive correlational research design was appropriate for this study because the aim was to identify associations between the predictor variables and the criterion variable as they exist; there was no intervention or manipulation of an independent variable. Correlational research designs have been used in previously published teacher self-efficacy studies to associate teacher self-efficacy with one or more predictor variables (Jamil, Downer, & Pianta, 2012; Mojavezi & Tamiz, 2012; Nosratinia, Saveiy, & Zaker, 2014, Rashidi & Moghadam, 2014).

Implementation of Design

The implementation of this study required disseminating the survey to a large number of Tennessee ESL teachers. The ESL teacher professional organization, Tennessee Teachers of

English to Speakers of Other Languages (TNTESOL), has a fluctuating membership of approximately 500 educators, the majority of which are Tennessee ESL teachers. After reaching out to the organization, the board of directors voted to support this study. TNTESOL agreed to send a brief email to members to inform them about the study and included a hyperlink to the Qualtrics® survey. TNTESOL members had the option to click the hyperlink within the email to participate in the survey. Once the surveys were submitted, analyses were conducted using correlations and standard multiple regression to answer the study's research question.

Participants

The participants in this study were in-service, K-12, Tennessee ESL teachers. All participants had at minimum a bachelor's degree because this is the minimal educational requirement to obtain a Tennessee teaching license (TDoE, 2017a). They were all licensed Tennessee ESL teachers who were teaching in a K-12 ESL classroom. They had obtained ESL licensure in Tennessee in one of the following ways: add-on endorsement, traditional licensure (undergraduate or graduate), or a practitioner license. The ESL add-on endorsement is designed for in-service teachers who have an interest in teaching ESL. The teachers must complete a number of courses stipulated by an EPP and pass the Praxis II ESL exam (TDoE, 2016a). Initial licensure is obtained through a traditional undergraduate or graduate teacher education program and requires a student teaching experience and the passing of all required licensure exams. Finally, the practitioner license requires the prospective ESL teacher to pass the Praxis II ESL licensure exam to begin teaching ESL. This avenue does require the school district to provide an orientation component and to have a partnership with an EPP so ESL courses can be taken while teaching (TDoE, 2017a).

This group was heterogeneous as there was variability in sex, age, ethnicity, and language background across the population. There were a total of 76,500 public school teachers in Tennessee during the 2011-2012 school year (U.S. Department of Education [USDoe], 2012a). Of this population, 91.3% were White, 5.2% were Black, and 2.8% spoke Spanish regardless of race (USDoe, 2012a). Additionally, 79.4% were female and the average age of Tennessee public school teachers was 42 years old (USDoe, 2012b). Demographic data specific to the Tennessee ESL teacher population was not available to the researcher. The demographic portion of the self-report survey solicited participant demographic information. The sample of the population is discussed in relation to the Tennessee teacher population as a whole.

Participants in this study were reached via a non-random sample from the population of ESL teachers in the state of Tennessee. The sample was reached using the TNTESOL email listserv on October 23, 2017. Approximately 500 ESL educators across Tennessee are members of TNTESOL as it is Tennessee's ESL teacher professional organization. To increase the level of participation among ESL teachers, a \$50 Amazon.com gift card was offered in a lottery drawing for those who chose to participate in the study by November 15, 2017. The survey remained open for 24 days and the lottery drawing for the gift card was done on November 16, 2017.

In order for a predictive correlational study to have an appropriate sample size, each predictor variable warrants at least 15 participants (Creswell, 2014; Mertens, 2015). With six predictor variables in this study, the minimum convenience sample size needed was 90. The TNTESOL listserv includes approximately 500 people. A total of 155 members of TNTESOL at least began the survey, which indicates approximately 31% response rate. However, six people indicated they were not in-service Tennessee ESL teachers and 23 others did not answer all

survey questions. The exclusion of these participants brought the number of survey responses used in data analysis to 126.

Setting

The setting of this study was the Internet via an online survey. The survey was disseminated to K-12 ESL teachers via an online survey hosted by the website Qualtrics®. The participants were asked to answer 29 questions consisting of dichotomous, multiple choice, and Likert-type scale items by selecting a button for each question. Using the Internet to disseminate the survey was viewed as the most viable option to obtain the largest number of participants. Furthermore, Qualtrics® added to the convenience because it allows the participants to complete the survey in any location on a device of their choice.

Instrumentation

There were two sections of the survey being used for data collection in this study (see Appendix B). The first section asked the participants' demographics, teaching experience, and current teaching circumstances. The second section was the *Teachers' Sense of Efficacy Scale – Short Form* (TSES-SF) used to measure the participants' self-efficacy in teaching ESL (Tschannen-Moran & Woolfolk Hoy, 2001).

Predictor Variables: Demographics, Experience, and Teaching Circumstances

The predictor variables were measured using the first section of the self-report survey (see Appendix B). The demographics section provided information on the participants including sex, age, ethnicity, language background, and education level. The experience subsection addressed the participants teaching experience (both prior to becoming an ESL teacher and years of ESL teaching), route to ESL licensure, practicum hours, and mentoring experience. The third subsection addressed participants' current teaching circumstance by addressing the number of

schools the participant serves, the number of ESL teachers at the participant's school, and her/his caseload of students. Appendix A reports each of the six predictor variables, definitions, self-efficacy factor associations, and the type of measurement for each. The two nominal variables, route to ESL licensure and presence of mentor, were dummy coded before performing data analysis.

Criterion Variable: ESL Teacher Self-Efficacy

The TSES-SF was used to measure the participants' self-efficacy in teaching ESL. This validated survey contains 12 Likert-type scale items that range from 1 ("Nothing") to 9 ("A Great Deal"). The example question taken from the survey, "How much can you use a variety of assessment strategies?" (Tschannen-Moran & Woolfolk Hoy, 2001), shows how the questionnaire is formatted in accordance to the response possibilities. The range of scores possible on this instrument is 1-9, and the higher the score, the more efficacious the teacher is proposed to be.

The TSES-SF is grounded in both Rotter's social learning theory and Bandura's social cognitive theory and uses the items to assess three factors of teachers' self-efficacy: "Efficacy for instructional strategies" (items 5,9,10,12), "Efficacy for classroom management" (items 1,3,6,8), and "Efficacy for student engagement" (items 2,4,7,11) (Tschannen-Moran & Woolfolk Hoy, 2001). Table 1 displays the reliability alpha levels of overall efficacy scale and the three subscales of the TSES-SF. The composite ($\alpha = 0.90$) was used in this study and is considered to have acceptable reliability (Goforth, 2015). For the sample population in this study, internal consistency and reliability of responses was calculated using Cronbach's alpha (Creswell, 2014).

Table 1

Means for TSES-SF Subscales and Total Score

	Mean	SD	α
Composite	7.1	0.98	0.90
Instruction	7.3	1.20	0.86
Management	6.7	1.20	0.86
Engagement	7.2	1.20	0.81

Note. Table adapted from Tschannen-Moran & Woolfolk Hoy (2001), p.800.

Tschannen-Moran and Woolfolk Hoy (2001) assessed the validity of the TSES-SF by correlating it with existing surveys that measure teacher self-efficacy. The developers found that the TSES-SF positively related to the previous surveys and the results of construct validity analyses indicate that the TSES-SF can “be considered reasonably valid and reliable” (Tschannen-Moran & Woolfolk Hoy, 2001, p.801).

Permission to use the TSES-SF. The developers of the TSES-SF state, “The instruction is copyrighted by the authors, however, there are no copyright restrictions on the instrument for use in scholarly research and for non-profit educational purposes” (p.801). This study qualifies for use without copyright infringement. Additionally, a search on the Internet found a permission letter on Dr. Woolfolk Hoy’s website and can be found in Appendix C.

Procedures

The TNTESOL membership listserv was utilized to disseminate the online survey via email to approximately 500 potential participants. The email requested in-service Tennessee ESL teachers interested in participating in the study to click a hyperlink to begin. The email also

included information about an incentive for participants via a lottery to win a \$50 Amazon.com gift card if they completed the survey between October 23, 2017 and November 15, 2017.

The instrument, a self-report, 29-item survey, was administered using Qualtrics®. The participants were able to click on the link provided in the email correspondence, and their browser window opened to the informed consent page. If they chose to participate, the survey began and the participants selected their answers on the dichotomous, multiple choice, and Likert-like scale items. Once the survey closed at midnight on November 15, 2017, the survey data was reviewed. Participants who indicated they were not in-service Tennessee ESL teachers and those who did not answer all survey questions were deleted. The data were downloaded in an SPSS data file for data analysis.

Data Analysis

Descriptive statistics were used for demographic data including: sex, age range, ethnicity, and language background (both English as a first language and bilingualism). These statistics provided an appropriate, more in-depth description of the participants. Descriptive statistics were also calculated for each survey item (not including the *TSES-SF*) and reported in Chapter 4.

Each null hypothesis was analyzed using a standard multiple regression with a significance level of $p = .05$. Standard multiple regression utilizes “research participants’ scores on two or more predictor variables to predict their performance on the criterion variable” (Gall, Gall, & Borg, 2007, p. 345). Because this study investigated the associations of six predictor variables and one criterion variable, standard multiple regression was the most appropriate statistical analysis. Hierarchical multiple regression was considered but later rejected. Hierarchical multiple regression requires compelling theoretical and empirical grounding in order to place predictor variables in a specific order for entry into the regression equation. With

the context of this study being specifically Tennessee ESL teachers and the heterogeneity of the population, the existing literature was deemed insufficient to progress with a hierarchical multiple regression.

Standard Multiple Regression: Assumptions

Predictive correlation and standard multiple regression were used to answer the study's main research question. According to Tabachnick and Fidell (2013), assumptions of independence of observations, normality, linearity, homoscedasticity, and multicollinearity should be tested prior to correlational and standard multiple regression calculations.

Independence of observations. The Durbin-Watson statistic tests the presence of correlations between adjacent residuals. If the data violate the assumption of independence, then the confidence intervals and the significance tests are invalid. The Durbin-Watson statistic can range from zero to four with a value of two meaning the residuals were uncorrelated (Field, 2013).

Normality and Outliers. Normality is important when running regressions because non-normally distributed variables “distort relationships and significance tests” (Osborne, Jason, & Waters, 2002, p. 1). The normality of the data was tested by visually inspecting a P-P Plot of the studentized residuals. Additionally, Cook's distance (CD_i) was calculated after obtaining a fitted model to identify outliers in the observations for the predictor variables (Cook & Weisberg, 1982). As described by Stevens (1984), Cook's distance “is a measure of the change in the regression coefficients that would occur if [a] case was omitted, thus revealing which cases are most influential in affecting the regression equation” (p. 341).

Linearity and Homoscedasticity. Linearity is essential to calculating accurate results from a multiple regression. If the relationship is nonlinear, underestimation can occur in the

results causing a Type II error. Heteroscedasticity can affect results as well by distorting the regression and increasing the probability of a Type I error. To test the assumptions of linearity and homoscedasticity of the variables, residual scatterplots were created and examined (Osborne, et al., 2001; Tabachnick & Fidell, 2013).

Multicollinearity and singularity. Multicollinearity refers to the situation when there are high correlations among predictor variables. Singularity refers to when a perfect correlation is found between variables. These situations need to be identified because it can affect the interpretation of the predictor variables on the criterion variable. The nominal predictor variables, route to ESL licensure and presence of a mentor, were dummy coded in SPSS for accurate correlational and regression analysis. The assumptions of multicollinearity and singularity were tested using variance influence factors, tolerance values, and a correlation matrix. Spearman's rho was the correlation coefficient used to identify ordinal variables with too high a statistic ($r_s = \pm 0.9$ and above) (Tabachnick & Fidell, 2013).

In multiple regressions, the combined relationship of the predictor variables with a single criterion variable is examined. The standard multiple regression used in this study entered all variables simultaneously. Spearman's rho was chosen as the correlation coefficient because it is appropriate to use with ordinal data measured on rank-ordered scales (Creswell, 2014; Mertens, 2015).

R-squared was calculated using SPSS and a regression table was created. The regression table includes the regression weight statistics (betas) for each predictor variable in standardized form using z scores to compare the magnitudes of the predictor variables (Creswell, 2014). The results of the standard multiple regression statistically answered the research question and led to the decision to reject or fail to reject each hypothesis.

Limitations

There are several limitations of the designed study. First, there was no student achievement data included as part of the study. Additionally, there was no collection of teacher evaluation data or collection of evidence of teacher effectiveness. Third, the actual preparation programs by EPPs were not examined as a component of the study. There were no ethical issues identified because the nature of the voluntary sampling method, the limited amount of participant data collected, and the anonymity of the participants was maintained.

There are inherent threats to validity when conducting predictive correlational studies. First, it is impossible for a researcher to be sure that all necessary predictor variables and/or control variables have been identified. While SCT and Bandura's (1994) four factors of self-efficacy guided the selection of predictors, there could be other unidentified variables that are associated with ESL teachers' self-efficacy. An example of this could be the socioeconomic status of the teachers' students or perception of administrator support (Çalik, Sezgin, Kavgaci, & Kiliç, 2012; Stipek, 2012).

Secondly, when performing the standard multiple regression, there is a chance of simultaneous causality bias. Simultaneous causality bias is when the research shows a predictor associated with a criterion variable, yet it should be performed the other way around (Assessing studies based on multiple regression, n.d.).

Errors-in-variables bias is also an inherent threat to validity in the design of this study. Data entry errors, recollection errors (e.g. hours of practicum), and participants intentionally answering falsely all pose a threat to collecting and maintaining valid data (Assessing studies based on multiple regression, n.d.).

Summary

Chapter three addressed the predictive correlational design, research question, research and null hypotheses, participant descriptions, instrumentation, procedures, data analyses, and limitations. Chapter 4 will address the findings of the data analysis procedures and results of this study.

CHAPTER FOUR: RESULTS

Introduction

The purpose of this quantitative, predictive correlational study was to investigate Tennessee teachers' self-efficacy via identifying associations with predictor variables identified within the theoretical context of social cognitive theory. This study also aimed to address the empirical gap in literature addressing the state of American ESL teachers' self-efficacy. Data were collected from 155 participants using an online survey sent to approximately 500 potential participants. The response rate was 31%. Out of the 155 survey responses, 132 were complete and usable for analysis. Additionally, six survey respondents declared they were not currently Tennessee ESL teachers, so they did not meet participant criteria and were excluded from the data analyses as well. A total of 126 participants' responses were used for data analysis.

Descriptive Statistics

Demographics

Descriptive statistics provide an overview of the sample's basic demographic features and other key variables (Field, 2013). There were many more female ($n = 120$, 95.2%) than male ($n = 6$, 4.8%) participants in the sample. This was expected because the Tennessee teacher population is 79.4% female (USDoE, 2012a). Most participants fell into the 46-55 age range ($n = 46$, 36.5%). Additionally, the vast majority of the sample participants were Caucasian, non-Hispanic ($n = 114$, 90.5%). This is also indicative of the population being sampled because 91.3% of all Tennessee teachers are White, non-Hispanic (USDoE, 2012a). Additionally, all teachers in Tennessee must have, at minimum, a bachelor's degree, and the majority of the participants ($n = 64$, 50.8%) had obtained a least master's degree ($n = 100$, 79.4%). All participant demographic information can be found below in Table 2.

Table 2

Frequency Count of Participant Demographics (N = 126)

Variable	Category	<i>n</i>	%
Sex	Male	6	4.8
	Female	120	95.2
Age	<25	5	4.0
	26-35	23	18.3
	36-45	29	23.0
	46-55	46	36.5
	55+	23	18.3
Ethnicity	Black/African America	4	3.2
	Caucasian non-Hispanic	114	90.5
	Hispanic	4	3.2
	Asian	4	3.2
Education	Bachelor's	26	20.6
	Master's	64	50.8
	Master's +30	20	15.9
	Ed. Specialist	14	11.1
	Doctorate	2	1.6
Location of ESL training	Tennessee	97	77.0
	Other state	28	22.2
	Outside U.S.	1	0.8

In addition to the sample's basic demographic data, language background necessitates consideration in this study (see Table 3). Research has shown English language teachers who learned English as a second language themselves can have lower teacher self-efficacy (TSE) if they have a low perception of their own English language proficiency (Ghasemboland & Hashim, 2013; Sabokrouh, 2014; Yilmaz, 2011). Because this study was conducted in Tennessee, the variability of English language proficiency was minimal with very few ($n = 9$) participants indicating English as a secondary language. Due to the small n , this variable was recorded but excluded from further analyses.

Table 3

Frequency Count of Participants' Language Backgrounds (N = 126)

Variable	Category	<i>n</i>	%
English as first language	Yes	117	92.9
	No	9	7.1
Fluent in a language other than English	Yes	34	27.0
	No	92	73.0

To further describe the participants, data on their current teaching situation was also collected. The majority of the respondents indicated they teach at one school ($n=82$, 65.1%) and utilize a pull-out ESL program ($n=81$, 64.3%). Pull-out ESL programs require ESL teachers to take ELLs out of their content classrooms, during regular curriculum instruction, to give direct ESL instruction in a different classroom. One surprising aspect found in this set of data is that slightly more than a quarter of participants ($n=33$, 26.2%) teach 41 or more ELLs, which is over the state regulated ratio of ESL teacher to ELLs, 1:40 (TDoE, 2016a). Table 4 provides an overview of the participants' teaching situations.

Table 4

Frequency Count of Participants' Teaching Situation Descriptions (N = 126)

Variable	Category	<i>n</i>	%
ESL program type	Pull-out	81	64.3
	Push-in	10	7.9
	ESL center school	5	4.0
	ESL as graded class	30	23.8
Number of schools participants serve	1	82	65.1
	2	28	22.2
	3	6	4.8
	4	2	1.6
	5+	8	6.3
Number of ELs responsible for teaching	<10	11	8.7
	11-20	24	19.0
	21-30	29	23.0
	31-40	29	23.0
	41+	33	26.2

Predictor Variables

Table 5 presents the frequency distributions of the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience prior to becoming an ESL teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) can also reveal additional characteristics of the sample. The six predictors are all categorical variables as measured by the ranges provided in each survey question (see Appendix B).

Most participants ($n = 91$, 72.2%) became licensed to teach ESL through an add-on endorsement program, which was expected because this data is in agreement with previous literature that identifies add-on endorsement as the ESL licensure route of choice across the U.S. (Baecher, 2012; Reeves, 2010). Although, it is important to note again that over 50% of the participants continued their education beyond adding the ESL endorsement to their existing

teaching license and obtained a master's degree (see Table 2). Nearly one-third of the sample ($n = 38$, 30.2%) did not participate in any practicum hours while another nearly equal portion ($n = 40$, 31.7%) completed 30+ practicum hours. This provides an interesting insight in the variability of the requirements of ESL preparation programs. The sample data also indicates the majority of participants ($n = 80$, 63.5%) were provided an ESL mentor teacher by either their ESL preparation program or school district.

Overall, the majority of participants are experienced teachers. One third of the participants ($n = 42$, 33.3%) indicated they had 10 or more years of teaching experience before teaching ESL, and over one third ($n = 46$, 36.5%) have 10 or more years of experience teaching ESL. Finally, the data indicates that most of the participants ($n = 56$, 44.4%) are the only ESL teacher at their school(s).

Table 5

Frequency Counts for Predictor Variables (N = 126)

Variable	Category	<i>n</i>	%	<i>Mdn</i>
Route to TN ESL licensure	Add-on endorsement	91	72.2	
	Other	35	27.8	
Practicum hours	0	38	30.2	
	1-9	11	8.7	
	10-19	29	23.0	10-19
	20-29	8	6.3	
	30+	40	31.7	
Mentoring experience	Yes	46	36.5	
	No	80	63.5	
Years of teaching experience prior to teaching ESL	0	26	20.6	
	1-3	25	19.8	
	4-6	20	15.9	4-6
	7-9	13	10.3	
	10+	42	33.3	
Years of ESL teaching experience	0 ^a	3	2.4	
	1-3	33	26.2	
	4-6	28	22.2	4-6
	7-9	16	12.7	
	10+	46	36.5	
Number of ESL teachers at school	1 ^b	56	44.4	
	2	22	17.5	2
	3	16	12.7	
	4	13	10.3	
	5+	19	15.1	

^a Participants marked “0” if they had not completed their first year of teaching ESL.

^b Participants marked “1” if they were the only ESL teacher at their school(s).

Criterion Variable

Table 6 displays the descriptive statistics of the criterion variable, TSE, and the three subscales, student engagement, instructional strategies, and classroom management, of the TSES created by Tschannen-Moran and Woolfolk Hoy (2011). The minimum score on the survey is 1

(i.e. having low TSE) and the maximum score is 9 (i.e. having high TSE). The sample had overall high TSE ($M = 7.72$, $SD = .86$) with instructional strategies being the highest scoring subscale ($M=7.96$, $SD=.89$). Additionally, the reliability for the overall instrument ($\alpha = .885$), student engagement ($\alpha = .796$), instructional strategies ($\alpha = .798$), and classroom management ($\alpha = .87$) indicated good reliability in this study (Field, 2013).

Table 6

Psychometric Characteristics for Teacher Self-Efficacy & Subscales (N = 126)

Variable	Number of Items	Minimum-Maximum Means	<i>M</i>	<i>SD</i>	α
Teacher Self-Efficacy	12	5.17-9	7.72	.86	.885
Teacher Self-Efficacy for Student Engagement	4	4-9	7.28	1.15	.796
Teacher Self-Efficacy for Instructional Strategies	4	5.5-9	7.96	.89	.798
Teacher Self-Efficacy for Classroom Management	4	3.25-9	7.91	1.07	.870

Statistical Analyses

Correlations

In addition to descriptive statistics, correlations were calculated. Table 7 presents the Spearman's rho correlation coefficients for the intercorrelations among the predictor variables and the criterion variable. Among the predictor variables, there were four statistically significant correlation coefficients. It is important to note that all four are considered weak correlations. The greatest positive correlation coefficient was between the route taken to ESL licensure and

the number of practicum hours participants performed ($r_s = .285, p < .01$). The presence of a mentor was also weakly associated with the number of practicum hours ($r_s = .239, p < .01$). Years of teaching experience before becoming an ESL teacher showed a slight negative relationship with practicum hours ($r_s = -.303, p < .05$) and a positive relationship with the participants' route to licensure ($r_s = .227, p < .05$). There were no statistically significant figures between the criterion variable, TSE, and the six predictor variables.

Table 7

Intercorrelations among the Predictor Variables & the Criterion Variable (N = 126)

Variable	1	2	3	4	5	6	7
1. Teacher Self-Efficacy	–						
2. Route to licensure ^a	.112	–					
3. Practicum hours	-.135	.285**	–				
4. Mentor ^b	.002	.045	.239**	–			
5. Years of teaching experience prior to teaching ESL	.169	.227*	-.303*	.146	–		
6. Years of ESL teaching experience	.072	-.109	.023	.138	.061	–	
7. Number of ESL teachers at school	-.010	-.104	.079	-.126	-.102	-.054	–

^a Route to licensure: 0 = traditional licensure and practitioner's license, 1 = add-on endorsement

^b Mentor: 0 = no, 1 = yes

*Correlation is significant at the 0.05 level (2-tailed).

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

Testing the Assumptions for Linear Regressions

Before conducting the regression analysis, assumptions tests were carried out and assessed to ensure the subsequent regression analysis was accurate. According to Tabachnick

and Fidell (2013), assumptions for independence of observations, normality, linearity, homoscedasticity, and multicollinearity should be tested.

The Durbin-Watson statistic was used to test for independence of observations. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.765, which indicates the assumption of independence of observations is tenable. The normality assumption was tested using the P-P plot of residuals for the TSES participant averages (see Figure 1) and the distribution of residuals for the TSES participant averages (see Figure 2). Examination of a P-P Plot and a histogram with superimposed normal curve demonstrate no gross violations of the assumption of normality.

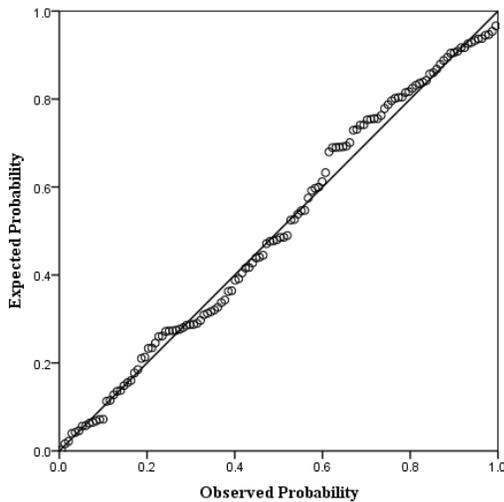


Figure 1. P-P Plot of residuals

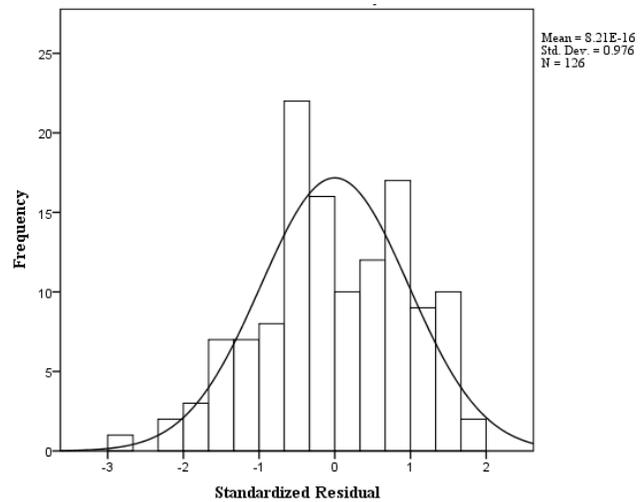


Figure 2. Distribution of residuals

Outliers were examined using Cook's D. The mean of Cooks' D figures was $M = .009$ for the data set. The minimum and maximums were $D_i = .000$ and $D_i = .060$. While there are several occurrences higher than the rest, none of the values are over 1.00. According to Cook and Weisberg (1982), there are no outliers that require further examination.

The assumption of linearity was tested using a residual scatterplot (see Figure 3) and partial regression plots. Inspection of the scatterplot and partial regression plots demonstrate no

gross violations of the assumption of linearity. Homoscedasticity can also be examined using Figure 3. Inspection of the scatterplot demonstrates no gross violations of the assumption of homoscedasticity.

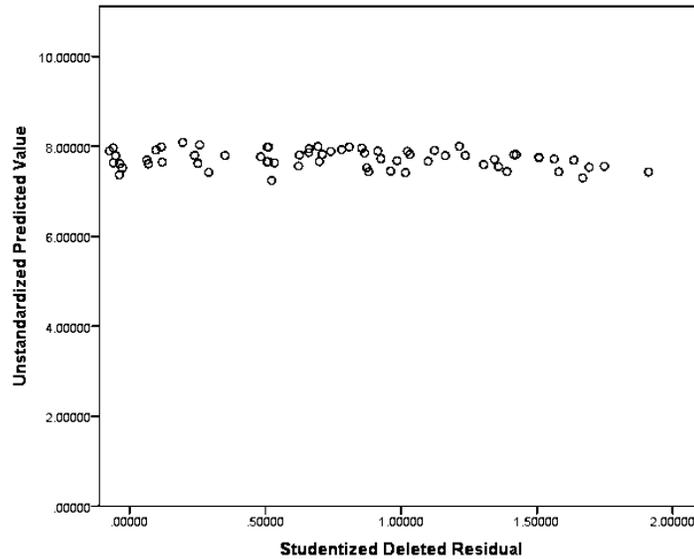


Figure 3. Residual Scatterplot

Multicollinearity among the predictor variables was tested using variance influence factor (VIF), tolerance values, and a correlation matrix. The VIF values for the predictor variables were well below the standard VIF threshold value of 10 (the highest was 1.214). The tolerance values were all greater than 0.1 (the lowest was .824), which also indicates the variables do not violate assumption of multicollinearity. Finally, the correlation matrix (see Table 7) demonstrates the data does not violate the assumption of multicollinearity.

Standard Multiple Regression

After determining all assumptions were met, a standard multiple regression was used to analyze the seven null hypotheses for this study. The primary null hypothesis (H_01) states there is no statistically significant, predictive relationship between the predictor variables (route to ESL certification, practicum experience, mentoring, years of teaching experience as non-ESL

teacher, years of experience as an ESL teacher, and number of ESL teachers at participant's school) and K-12 Tennessee ESL teachers' self-efficacy. The six subsequent hypotheses address the predictive association of each predictor variable with the criterion variable.

The evidence from the multiple regression analysis supports failing to reject all seven null hypotheses. The model does not statistically predict Tennessee ESL teachers' self-efficacy, $F(6, 119) = 1.154, p = .336, R^2 = .055$ (adjusted $R^2 = .007$). There was not significant evidence to reject the primary null hypothesis; that is, route to ESL licensure, practicum hours, presence of a mentor teacher, years of experience before teaching ESL, years of experience teaching ESL, and number of ESL teachers at participants' schools do not significantly contribute to the explanation of the variance in the average scores of Tennessee ESL teachers' self-efficacy. The linear combination of the six predictor variables account for 5.5% of the variability of the criterion variable, TSE. The percentage of variance can be further explained across the Tennessee ESL teacher population by using the adjusted R^2 value of 0.7% (Field, 2013). The values of R^2 and adjusted R^2 indicate the model is a poor fit and the six predictor variables do not significantly predict Tennessee ESL teachers' self-efficacy. Table 8 shows the statistical values used to make the decision to fail to reject the secondary null hypotheses.

Table 8

Summary of Tested Secondary Null Hypotheses Findings

Hypothesis	Stated Null	<i>p</i>	<i>t</i>	β
H ₀₂	Route to ESL licensure will not significantly predict TSE.	.548	.602	.057
H ₀₃	Practicum experience will not significantly predict TSE.	.262	-1.127	-.058
H ₀₄	Mentoring will not significantly predict TSE.	.519	-.647	-.107
H ₀₅	Years of teaching experience prior to teaching ESL will not significantly predict TSE.	.162	1.407	.073
H ₀₆	Years of ESL teaching experience will not significantly predict TSE.	.265	1.120	.068
H ₀₇	Number of ESL teachers at participants' schools will not significantly predict TSE.	.870	.164	.008

*Note. $p < .05$

Summary

In summary, 126 Tennessee ESL teachers participated in this predictive correlational study that examined possible variables associated with TSE. Descriptive statistics and correlations were examined during preliminary data analysis. Assumptions for standard multiple regression were tested and no gross violations were found. The standard multiple regression analysis indicated there is no statistically significant predictive value of the six predictor variables and Tennessee ESL teachers' self-efficacy. Furthermore, the regression analysis

revealed the predictor variables to not be statistically significant at an individual level as well (see Table 8). Overall, the model used for the standard multiple regression yielded statistically insignificant results that revealed a weak association with Tennessee ESL teachers' self-efficacy ($R^2 = .055$, adjusted $R^2 = .007$). In the next chapter, these findings will be discussed in conjunction with existing literature, conclusions will be explained, and recommendations for future research will be proposed.

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

Introduction

The purpose of this predictive correlational study was to investigate potential sources of teacher self-efficacy of Tennessee ESL teachers using Bandura's (1994) four factors of self-efficacy. Tchannen-Moran and Woolfolk Hoy's (2001) *Teacher Sense of Efficacy Scale* was used in conjunction with researcher created survey items that addressed demographic and predictor variable data. The researcher used convenience sampling through the TNTESOL listserv to solicit participants for the study. Standard multiple regression was used to analyze participants' survey responses ($N = 126$). This chapter will situate the findings within the context of existing literature, discuss the implications of the study, and propose recommendations for future research.

Discussion

The findings of this study were statistically insignificant. The six predictor variables (route to ESL licensure, practicum hours, presence of mentor, years of teaching experience prior to ESL, years of experience of ESL teaching, and number of ESL teachers at participants' schools) did not account for a significant variance in the TSE of Tennessee ESL teachers. This conclusion was reached based on the multiple regression analysis (see Table 8). The overall association of variance in the multiple regression model was very low ($R^2 = .054$, adjusted $R^2 = .007$).

The predictor variables were identified using Bandura's (1977) social cognitive theory and the four self-efficacy factors outline by Bandura (1994). The findings of this research contradict Bandura's (1994) sources of self-efficacy and suggest mastery experiences, vicarious experiences, social persuasion, and physiological factors, at least as defined in this study, play a

negligible role in Tennessee ESL teachers' self-efficacy. However, it is prudent to consider alternative data sources and statistical analyses, as there are inherent limitations in predictive correlational studies and the researcher did not collect data for all variables noted in the literature (e.g. teacher effectiveness measures, administrative support).

Mastery and Vicarious Experiences Predictor Variables

Bandura (1997) states, "enactive mastery experiences are the *most* influential source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to succeed" (p.80). However, this study's findings indicate the predictor variables associated with mastery and vicarious experiences (years of teaching experience prior to ESL, years of ESL teaching experience, practicum, and mentoring) were not significant in predicting teachers' self-perceived self-efficacy. There are several studies in the literature that reflect the same finding. Jamil et al. (2013) conducted a predictive correlational study on pre-service teachers' self-efficacy and found "mastery teaching performance was not a significant predictor of teacher self-efficacy" (p.130). Concurrently, Wagner (2011) also found that the amount of mastery experiences pre-service teachers had during student teaching had no statistically significant associations with their TSE. It is important to note that the two studies mentioned above were conducted with pre-service teacher participants and none of them directly address the content area of ESL. However, as stated in chapter two, there are multiple studies that have reported mastery experiences, such as years of teaching experience, as positively correlated with TSE (Klassen & Chui, 2010; Malinen et al., 2013; Putman, 2012; Shoulders & Krei, 2015).

One reason for the ambiguity in mastery experiences' associated with TSE in the field of ESL could be the variety of challenges presented by the diverse population of ESL students.

ESL teachers instruct students with various language and academic backgrounds, which could have the potential to cause variability in the effects of mastery experiences upon TSE. The ESL student population's characteristics can vary greatly year-to-year (e.g. first language proficiency, English proficiency, country of origin, and time in ESL program) and present new challenges for ESL teachers. Along these lines, Fenner (2016) suggests pre-service and in-service ESL teachers need training in teaching ELLs with specific needs such as “students with interrupted formal education, dually identified English learners, long-term English learners, and English learners living in poverty” (p. 12). As the number of ELLs increases in United States' schools, so does the diversity within this student population.

When connecting mastery experiences with years of teaching experience, as was done in this study, existing literature reveals there is a nonlinear relationship between years of teaching and TSE. Klassen and Chui (2010) found that teachers' self-efficacy “increase[ed] with experience for early and mid-career stage teachers and declin[ed] for teachers in the late career stages” (p.747). Since nearly half of the participants in this study had over seven year of ESL teaching experience, these teachers have had ample time for their self-efficacy to be high according to Klassen and Chui's (2010) findings. The mean average of the participants' TSE was high ($M = 7.72$), and this is agreement with these previous findings in the literature.

Social Persuasion Predictor Variables

In this study, the presence of a mentor and number of ESL teachers at participants' schools were examined as predictor variables rooted within the self-efficacy factor of social persuasion. The presence, or absence, of a mentor ESL teacher had little to no association with the participants' TSE. Approximately one-third ($n = 46$, 36.51%) of the participants reported having a mentor ESL teacher while the other two-thirds reported never having a mentor

specifically for ESL. The effects of mentorships can be a difficult construct to study because there are many confounding factors (e.g. mentor expertise, mentor-mentee relationship, amount of time spent mentoring) that were not investigated in this study. Mentorship programs vary in requirements and can involve friendship, professional support, and sponsorship between the mentee and mentor. Torres et al. (1995) explained mentors can take various roles from traditional mentors (i.e. more experienced teachers) to supportive administrators. As stated in chapter two, there are several studies that found a positive association between mentors and mentees' TSE (Brannan & Bleistein, 2012; Fox & Peters, 2013; Kissau & King, 2014). The predictor variable in this study did not account for the effectiveness of the mentorship, but merely the presence of such a relationship. Since the sample population was primarily experienced teachers with more than seven years experience, there is the possibility that the mentor relationships that were present when they began teaching have faded across time. In retrospect, ESL teachers' opportunities to collaborate with each other and participate in professional development opportunities may have been considered as collegial rather than mentorship relationships for such an experienced population of educators (Lumpe, Vaughn, Henrikson, & Bishop, 2014).

The number of ESL teachers at participants' schools was also found to be statistically insignificant in association to TSE. Many times, ESL teachers have little to no face-to-face interaction with other ESL teachers during the school year because they are the only ESL teacher at their school(s). Almost half ($n = 56, 44.44\%$) of the participants in this study reported being the only ESL teacher at their school(s). Research has shown that professional collaborative practices in the field of teaching have been positively correlated with higher TSE (Chong & Kong, 2012; Guo et al., 2011; Moolenaar et al., 2012; Tschannen-Moran & Woolfolk Hoy,

2006). The researcher recognizes from her own experiences that technology services such as cloud sharing and email have provided an avenue and platform for ESL teachers to share plans and practices with one another. Also, it is customary for ESL departments to hold district-wide meetings and perhaps the frequency and influence of these professional meetings could have the potential to impact one's TSE.

Because of the limitations of the data collection on these topics, the researcher believes a more in depth examination of these variables is warranted based on the existing research.

Missing Predictor Variables

There are several constructs associated with teacher self-efficacy that were not investigated in this study. Several studies have found TSE to be influenced by administrator support (Bangs & Frost, 2012; Çalik, Sezgin, Kavgaci, & Kiliñç, 2012; Stipek, 2012), teacher personalities (Jamil et al. 2012; Zee, Koomen, Jellesma, Geerlings, & de Jong, 2016) and the socioeconomic status of student populations (Stipek, 2012). These potential factors of TSE were not explored in this study for three reasons. First, these constructs are not directly connected with Bandura's (1994) factors of self-efficacy. Second, the collection of data for these possible variables was beyond the scope of the self-report survey used in this study. Third, the response and completion rate of the survey was an issue of concern. The more predictor variables added to the study, the more participants are needed for statistically valid results in data analysis.

The construct of TSE could also be unique in the field of ESL specifically. This may be because the majority of ESL teachers have small class sizes, more freedom with curriculum, and more autonomy in curriculum content and pacing. However, there are also some ESL specific challenges. Many times, ESL teachers have students of varying English proficiency levels who speak multiple different languages in one ESL class. This study did not attempt to investigate

these variables but attempted to extract information that could be relevant for ESL teacher preparation programs and local education agencies. Unfortunately, definite conclusions cannot be made. The next section will outline implications from the data and analyses.

Implications

One of the most important findings derived from this study is that Bandura's (1994) factors of self-efficacy proved statistically insignificant in this study. While the study only examined six predictor variables, these variables were strongly rooted in the self-efficacy factors of mastery experiences, vicarious experiences, and social persuasion (Bandura, 1994). The major implication here is that other factors need further investigation when it comes to teacher self-efficacy with regards to ESL.

As mentioned above, some of these factors (i.e. administrative support, socioeconomic status of students, etc.) have existing literature in other content areas. However, ESL populations of students are unique and face a different set of challenges than the mainstream population of native English speakers. While the *Teacher Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001) is a valid instrument and has provided reliable results across content areas, the researcher believes it would be worthwhile to develop an instrument that focuses explicitly on ESL instructional requirements. Additionally, having a 1-9 Likert-type response scale is not ideal; Revilla, Saris, and Krosnick (2013) conducted research that suggests agree-disagree scales that have no more than five answer categories produce higher quality data.

This study was exploratory in nature and can be used to start a discourse about the self-efficacy of Tennessee, and perhaps American, ESL teachers. The model used was not robust enough to explain variance in TSE; however, exploring additional factors of ESL teachers' self-efficacy would be worthwhile for the K-12 ESL field and its stakeholders. Thus, more research,

using different constructs and possibly different or additional statistical analyses is what is suggested by the findings of this study, as discussed in the following recommendations.

Recommendations

The researcher recommends further exploratory research of TSE in the field of ESL in America. Specifically, taking existing research from other content areas and adjusting for ESL specific instruction could reveal variables that influence ESL teachers' self-efficacy beyond Bandura's (1994) factors. The researcher recommends a study that examines teacher performance through annual teacher evaluation measures, administrator support (from the administrator's view and the ESL teacher's view), and the amount of instructional time provided for ELL students. It is also suggested to conduct direct observations of participants in a classroom setting to determine their management and instructional practices rather than relying solely on self-report measures.

Finally, case study and phenomenological qualitative research could be utilized to garner information about ESL teachers' self-efficacy directly from a sample of American ESL teachers. One variable that should be investigated via interviews or focus groups is the ESL teachers' description of the working relationships they have with ELLs' classroom teachers. According to Fenner (2016), co-teaching and collaborative planning between ESL and content teachers is becoming more widespread; however, the researcher notes that there needs to be more research on the effectiveness of these models and the support systems in place to make them successful. Since working relationships between content and ESL teachers are becoming more common and mandated, an investigation into the associations these relationships may have on TSE is warranted. Additionally, ESL teachers are being relied upon as "coaches to peers in their school buildings" (Fenner, 2016, p. 5). Many times this comes in the form of providing professional

development opportunities for content teachers of ELLs. Since ESL teachers are beginning to be viewed as teacher leaders for their school(s), some of the attributes of this distinctive role should be explored (e.g. is their leadership role defined, peers' reception of their role, leadership experience/training) in relation to TSE. Qualitative research methods such as case studies or phenomenology should include interviews of both teachers and administrators. The interviews could be analyzed for commonality across teachers and administrators as well. The information from the interviews and focus groups could provide valuable insight when identifying variables to research with quantitative methods.

Conclusion

In summary, this study found no statistical significance using Bandura's (1994) four factors of self-efficacy in the Tennessee ESL context. The six predictor variables (route to ESL licensure, practicum hours, presence of mentor, years of teaching experience prior to ESL, years of experience of ESL teaching, and number of ESL teachers at participants' schools) were not statistically associated with the TSE of Tennessee ESL teachers. More research is needed on the construct of TSE in the field of American ESL teachers because it has been found that TSE has been linked to both teacher effectiveness and student achievement (Barouch Gilbert et al., 2013; Guo et al., 2012; Khan, 2012; Klassen et al, 2010; Zee & Koomen, 2016). The non-significant findings of this study exemplify the elusive nature of TSE and hopefully provide the field of educational research an impetus to continue research on TSE in the context of ESL classrooms.

REFERENCES

- Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A., Pauly, E., & Zellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority schools* (Rep. No. R-2007-LAUDS). Santa Monica, CA: Rand Corporation. Retrieved from <https://www.rand.org/content/dam/rand/pubs/reports/2005/R2007.pdf>
- Assessing studies based on multiple regression (n.d.). Published online [pdf]. Retrieved from http://www.ssc.upenn.edu/~fdiebold/Teaching104/Ch9_slides.pdf
- Baecher, L. (2012a). Feedback from the field: What novice PreK-12 ESL teachers want to tell TESOL teacher educators. *TESOL Quarterly*, 46(3), 578-588. doi: 10.1002/tesq.43
- Baecher, L. (2012b). Integrating clinical experiences in a TESOL teacher education program: Curriculum mapping as process. *TESOL Journal*, 3(4), 537-551. doi: 10.1002/tesj.34
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. Retrieved from <https://www.uky.edu/~eushe2/Bandura/Bandura1977PR.pdf>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development: Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press. Retrieved from <http://www.uky.edu/~eushe2/Bandura/Bandura1989ACD.pdf>
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, p. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998). Retrieved from <https://www.uky.edu/~eushe2/Bandura/Bandura1994EHB.pdf>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Cambridge.
- Bangs, J., & Frost, D. (2012). Teacher self-efficacy, voice and leadership: Towards a poly framework for education international. *Education International Research Institute*, University of Cambridge Faculty of Education. Retrieved from <http://download.ei-ie.org/SiteDirectory/Research/Documents/Research%20Institute/Teacher%20Self%20efficacy%20GB%20pdf.pdf>
- Barouch Gilbert, R., Adesope, O.O., & Schroeder, N.L. (2014). Efficacy beliefs, job satisfaction, stress and their influence on the occupational commitment of English-medium content teachers in the Dominican Republic. *Educational Psychology*, 34(7).
- Bautista, N.U. (2011). Investigating the use of vicarious and mastery experiences in influencing early childhood education majors' self-efficacy beliefs. *Journal of Science Teacher Education*, 22(4), 333-349.

- Bollen, K. A. & Jackman, R. W. (1990); *Regression diagnostics: An expository treatment of outliers and influential cases*, in Fox, John; and Long, J. Scott (eds.); *Modern Methods of Data Analysis* (pp. 257-91). Newbury Park, CA: Sage.
- Brannan, D., & Bleistein, T. (2012). Novice ESOL teachers' perceptions of social support networks. *TESOL Quarterly*, 46(3), 519-541.
- Çalik, T., Sezgin, F., Kavgaci, H., & Cagatay Kiliç, A. (2012). Examination of relationships between instructional leadership of school principals and self-efficacy of teachers and collective teacher efficacy. *Educational Sciences: Theory and Practice*, 12(4), 2498-2504.
- Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. *European Journal of Psychology of Education*, 27(1), 115-132. Retrieved from <https://link.springer.com/content/pdf/10.1007%2Fs10212-011-0069-2.pdf>
- Chong, W.H. & Kong, C.A. (2012). Teacher collaborative learning and teacher self-efficacy: The case of lesson study. *The Journal of Experimental Education*, 80(3), 263-283. doi: 10.1080/00220973.2011.596854
- Cochran-Smith, M., & Villegas, A.M. (2015). Framing teacher preparation research: An overview of the field, part 1. *Journal of Teacher Education*, 66(1), 7-20. doi: 10.1177/0022487114549072
- Cook, R. D. & Weisberg, S. (1982); *Residuals and influence in regression*, New York, NY: Chapman & Hall
- Corelanguages. (2015). *The Difference between ESL and EFL*. Retrieved from <https://corelanguages.com/difference-between-esl-and-efl/>
- Correll, P.K. (2016). Teachers' preparation to teach English language learners (ELLs): An investigation of perceptions, preparation, and current practices. (Doctoral dissertation, University of Kentucky). Retrieved from http://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1021&context=edc_etds
- Creswell, J.W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (5th ed.). Columbus, OH: Merrill Prentice-Hall.
- Daniel, S.M., & Pray, L. (2016). Learning to teach English language learners: A study of elementary school teachers' sense-making in an ELL endorsement program. *TESOL Quarterly*, 0(0), p.1-33. doi:10.1002/tesq.347
- Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of Teacher Education*, 61, 35-47.

- Durgunoğlu, A.Y. & Hughes, T. (2010). How prepared are the U.S. preservice teachers to teach English language learners? *International Journal of Teaching and Learning in Higher Education*, 22(1), p.32-41.
- Faez, F., & Valeo, A. (2012). TESOL teacher education: Novice teachers' perceptions of their preparedness and efficacy in the classroom. *TESOL Quarterly*, 46(3), 450-471. doi: 10.1002/tesq.37
- Fenner, D. S. (2016). The preparation of the ESL educator in the era of college- and career-readiness standards: A summary of the TESOL international association convening. *TESOL International Association*. Retrieved from http://getsupported.net/wp-content/uploads/CCR-Standards-Convening_Final2.pdf
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). London: SAGE.
- Fox, A.F., & Peters, M.P. (2013). First year teachers: Certification program and assigned subject on their self-efficacy. *Current Issues in Education*, 16(1), 1-15.
- Franco-Fuenmayor, S.E. (2013). Examining dual language, bilingual, and ESL teachers' knowledge, professional development experiences, and perceptions about second language programs in Texas (Doctoral dissertation, Texas A&M). Retrieved from <http://oaktrust.library.tamu.edu/handle/1969.1/149390>
- Gall, M.D., Gall, J.P., & Borg, W. (2007). *Education research: An introduction*. Boston, MA: Pearson.
- Ghasemolandi, F., & Hashim, F.B. (2013). The effect of background characteristics on self-efficacy beliefs of English as foreign language teachers in one selected middle-east country. *International Journal of Asian Social Science*, 3(9), 1982-1991. Retrieved from [http://www.aessweb.com/pdf-files/Ijass-si-3\(9\)-1982-1991.pdf](http://www.aessweb.com/pdf-files/Ijass-si-3(9)-1982-1991.pdf)
- Goforth, C. (2015). Using and interpreting Cronbach's alpha. Retrieved from <http://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/>
- Guo, Y., Justice, L.M., Swayer, B., & Tompkins, V. (2011). Exploring factors related to preschool teachers' self-efficacy. *Teaching and Teacher Education*, 27(1), 961-968. doi: 10.1016/j.tate.2011.03.008
- Guo, Y., McDonald Connor, C., Yang, Y., Roehring, A. D., & Morrison, F. J. (2012). The effects of teacher qualification, teacher self-efficacy, and classroom practices on fifth graders' literacy outcomes. *Elementary School Journal*, 113, 3-24. doi:10.1086/665816
- Holzberger, D., Philipp, A., & Kunter, M. (2013). How teachers' self-efficacy is related to instructional quality: A longitudinal study. *Journal of Educational Psychology*, 105(3), 774-786. doi: 10.1037/a0032198
- Huberman, M. (1989). The professional life cycle of teachers. *Teachers College Record*, 9(1), 31-57.

- Jamil, F.M., Downer, J.T., & Pianta, R.C. (2012). Association of pre-service teachers' performance, personality, and beliefs with teacher self-efficacy at program completion. *Teacher Education Quarterly*, 39(4), 119-138.
- Jimenez-Silva, M., Olson, K., & Jimenez Hernandez, N. (2012). The confidence to teach English language learners: Exploring coursework's role in developing preservice teachers' efficacy. *The Teacher Educator*, 47(1), 9-28. doi: 10.1080/08878730.2011.632471
- Karabenick, S.A., Clemens Noda, P.A. (2004). Professional development implications of teachers' beliefs and attitudes toward English language learners. *Bilingual Research Journal*, 2, 55-75.
- Khan, S. A. (2012). The relationship between teachers' self-efficacy and students academic achievement at secondary level. *Language In India*, 12(10), 436-448.
- Klassen, R.M. & Chui, M.M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756. doi 10.1037/a0019237
- Klassen, R.M. & Tze, V.M. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, 12, p.59-76. doi 10.1016/j.edurev.2014.06.001
- Klassen, R.R., Usher, E.L., & Bong, M. (2010). Teachers' collective efficacy, job satisfaction, and job stress in cross-cultural context. *Journal of Experimental Education*, 78(4), 464-486. doi 10.1080/00220970903292975
- Kissau, S.P., & King, E.T. (2014). Peer mentoring second language teachers: A mutually beneficial experience? *Foreign Language Annals*, 48(1), 143-160. doi: 10.1111/flan.12121
- Knoblauch, D., & Chase, M. A. (2015). Rural, suburban, and urban schools: The impact of school setting on the efficacy beliefs and attributions of student teachers. *Teaching and Teacher Education*, 45, 104-114. doi: <http://dx.doi.org/10.1016/j.tate.2014.10.001>
- König, J., Lammerding, S., Nold, G., Rohde, A., Strauß, S., & Tachtsoglou, S. (2016). Teachers' professional knowledge for teaching English as a foreign language: Assessing the outcomes of teacher education. *Journal of Teacher Education*, 67(4), 320-337. doi: 10.1177/0022487116644956
- López, F., Scanlan, M., & Gundrum, B. (2013) Preparing teachers of English language learners: Empirical evidence and policy implications. *Education Policy Analysis Archives*, 21 (20) Retrieved from <http://epaa.asu.edu/ojs/article/view/1132>
- Lumpe, A., Vaughn, A., Henrikson, R., Bishop, D. (2014). Teacher professional development and self-efficacy beliefs. In: Evans, R., Luft, J., Czerniak, C., & Pea, C. (Eds), *The role of science teachers' beliefs in international classrooms*. Rotterdam: Sense Publishers.

- Malinen, O.P., Savolainen, H., Engelbrecht, P., Xu, J., Nel, M., Nel, N., & Tlale, D. (2013). Exploring teacher self-efficacy for inclusive practices in three diverse countries. *Teaching & Teacher Education*, 33, 34-44. doi: <http://dx.doi.org/10.1016/j.tate.2013.02.004>
- Malmberg, L.E., Hagger, H., & Webster, S. (2014). Teachers' situation-specific mastery experiences: teacher, student group and lesson effects. *European Journal of Psychology of Education*, 29, 429-451. doi 10.1007/s10212-013-0206-1
- Mertens, D.M. (2015). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (4th ed.) [Kindle version]. Thousand Oaks, CA: Sage Publications.
- Mohamadi, F.S. & Asadzadeh, H. (2012). Testing the mediating role of teachers' self-efficacy beliefs in the relationship between sources of efficacy information and students achievement. *Asia Pacific Education Review*, 13(3), 427-433. doi:10.1007/s12564-011-9203-8
- Mojavezi, A., & Tamiz, M.P. (2012). The impact of teacher self-efficacy on the students' motivation and achievement. *Theory and Practice in Language Studies*, 2(3), 483-491. doi:10.4304/tpls.2.3.483-491
- Moolenaar, N.M., Slegers, P.J.C., & Daly, A.J. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education*, 28(2), 251-262. doi: 10.1016/j.tate.2011.10.001
- Moulding, L.R., Stewart, P.W., & Dunmeyer, M.L. (2014). Preservice teachers' sense of efficacy: Relationship to academic ability, student teaching placement characteristics, and mentor support. *Teaching and Teacher Education*, 41, p.60-66. doi 10.1016/j.tate.2014.03.007
- Multiple regression (n.d.). Retrieved from <http://www.statstutor.ac.uk/resources/uploaded/multiple-regression.pdf>
- Murphey, D. (2014). The academic achievement of English language learners: Data for the U.S. and each of the states. *Child Trends*, 62, 1-9. Retrieved from <https://www.childtrends.org/wp-content/uploads/2015/07/2014-62AcademicAchievementEnglish.pdf>
- Nayar, P.B. (1997). ESL/EFL dichotomy today: language politics or pragmatics? *TESOL Quarterly*, 31(1). 319-337.
- Nosratinia, M., Saveiy, M., & Zaker, A. (2014). EFL learners' self-efficacy, metacognitive awareness, and use of language learning strategies: How are they associated? *Theory and Practice in Language Studies*, 4(5), 1080-1092. doi: 10.4304/tpls.4.5.1080-1092
- Osborne, Jason & Elaine Waters (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research & Evaluation*, 8(2), p.1-5. Retrieved from <http://PAREonline.net/getvn.asp?v=8&n=2>

- Pajares (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved from <https://www.uky.edu/~eushe2/Pajares/eff.html>
- Peacock, M. (2001). Pre-service ESL teachers' beliefs about second language learning: A longitudinal study. *System*, 29(2), 177-195.
- Pearson, T. (2017). Using lesson observations. In M. O'Leary (Ed.), *Reclaiming lesson observation: Supporting excellence in teacher learning* [Kindle version]. Retrieved from https://smile.amazon.com/Reclaiming-Lesson-Observation-Supporting-excellence-ebook/dp/B01LYKORUY/ref=mt_kindle?_encoding=UTF8&me=
- Peregoy, S. F., & Boyle, O., (2017). *Reading, writing, and learning in ESL: A resource book for K-12 teachers* (7th ed.). Boston: Pearson/Allyn and Bacon.
- Peter, L., Markham, P., & Frey, B.B. (2012). Preparing teachers for success with English language learners: Challenges and opportunities for university TESOL educators. *The Teacher Educator*, 47(4), 302-327. doi: 10.1080/08878730.2012.707757
- Phan, N.T., & Locke, T.I. (2015). Sources of self-efficacy of Vietnamese ESL teachers: A qualitative study. *Teaching & Teacher Education*, 52. 73-82.
- Polat, N., Zarecky-Hodge, A., & Schreiber, J.B. (2016). Academic growth trajectories of ELLs in NAEP data: The case of fourth- and eighth-grade ELLs and non-ELLs on mathematics and reading tests. *Journal of Educational Research*, 109(5), 541-553. doi: 10.1080/00220671.2014.993461
- Putman, S.M. (2012). Investigating teacher efficacy: Comparing preservice and inservice teachers with different levels of experience. *Action in Teacher Education (Association of Teacher Educators)*, 34(1), 26-40.
- Raofi, S., Tan, B.H., & Chan, S.H. (2012). Self-efficacy in second/foreign language learning contexts. *English Language Teaching*, 5(11), 60-73. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1080058.pdf>
- Rashidi, N. & Moghadam, M. (2014). The effect of teachers' beliefs and sense of self-efficacy on Iranian EFL learners' satisfaction and academic achievement. *TESL-EL*, 18(2), 1-23. Retrieved from <http://tesl-ej.org/pdf/ej70/a3.pdf>
- Reeves, J. (2010). Looking again at add-on ESOL certification. *TESOL Quarterly*, 44(2), 354-364. doi: 10.5054/tq.2010.222216
- Revilla, M.A., Saris, W.E., & Krosnick, J.A. (2013). Choosing the number of categories in agree-disagree scales. *Sociological Methods & Research*, 43(1), 73-97. doi: 10.1177/0049124113509605
- Rose, K.R. (1999). Teachers and students learning about requests in Hong Kong. In E. Hinkel (Ed.), *Culture in second language teaching and learning* (p.167-180). New York, NY: Cambridge University Press.

- Ross, J. A. (1994). *Beliefs That Make a Difference: The Origins and Impacts of Teacher Efficacy*. Paper presented at the meeting of The Canadian Association for Curriculum Studies, Calgary, Alberta, Canada.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80(1), 1–28.
Retrieved from <http://www.soc.iastate.edu/Sapp/soc512Rotter.pdf>
- Rubinstein-Avila, E., & Lee, E.H. (2014). Secondary teachers and English learners (ELLs): Attitudes, preparation and implications. *The Clearing House*, 87(5), 187-191. doi: 10.1080/00098655.2014.910162
- Sabokrouh, F. (2014). The effect of EFL teachers' attitude toward English language and English language proficiency on their sense of efficacy. *English Language Teaching*, 7(1), 66-74.
<http://www.ccsenet.org/journal/index.php/elt/article/view/32580/18944>
- Sachs, G.T., Carr, K.D., Limb, P., & Choi, J. (2014). An award-winning ESOL endorsement program: A case for ethnographic approaches in teacher education. *GATEways to Teacher Education: A Journal of the Georgia Association of Teacher Educators*, 15(1), 2-12. Retrieved from
http://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1034&context=mse_facpub
- Samson, J.F. & Collins, B.A. (2012). Preparing all teachers to meet the needs of English language learners. *Center for American Progress*. Retrieved from
<https://www.americanprogress.org/issues/education/reports/2012/04/30/11372/preparing-all-teachers-to-meet-the-needs-of-english-language-learners/>
- Savaş, A.C., Bozgeyik, Y., & Eser, İ. (2014). A study on the relationship between teacher self efficacy and burnout. *European Journal of Educational Research*, 3(4), 159-166.
- Shoulders, T.L., & Krei, M.S. (2015). Rural high school teachers' self-efficacy in student engagement, instructional strategies, and classroom management. *American Secondary Education*, 44(1), 50-61.
- Stapleton, P., & Shao, Q. (2016). A worldwide survey of MATESOL programs in 2014: Patterns and perspectives. *Language Teaching Research*. 1-19. doi: 10.1177/1362168816659681
- Stevens, J.P. (1984). Outliers and influential data points in regression analysis. *Quantitative Methods in Psychology*, 95(2), 334-344. Retrieved from
<https://pdfs.semanticscholar.org/6b1a/0a48e3f963b25c5670df9324a4470062b41c.pdf>
- Stipek, D. (2012). Context matters: Effects of student characteristics and perceived administrative and parental support on teacher self-efficacy. *The Elementary School Journal*, 112(4), 590-606. doi: 10.1086/664489

- Swanson, P. (2012). Second/foreign language teacher efficacy and its relationship to professional attrition. *The Canadian Modern Language Review*, 68(1), 78-101. doi:10.3138/cmlr.68.1.078
- Tabachnick, B.G., & Fidell, L.S. (2013). *Using Multivariate Statistics* (6th ed.). Upper Saddle River, NJ: Pearson.
- Tennessee Department of Education (2016a). *ESL program policy*. Published online. Retrieved from https://www.tn.gov/assets/entities/sbe/attachments/7-22-16_III_A_ESL_Program_Policy_3_207_Attachment_Clean_Copy.pdf
- Tennessee Department of Education (2016b). *Endorsement flexibility and additional endorsements*. Published online. Retrieved from https://www.tn.gov/assets/entities/education/attachments/lic_adding_endorsements_quick_facts.pdf
- Tennessee Department of Education (2017a). *Apply for a new teacher license*. Published online. Retrieved from <https://www.tn.gov/education/article/apply-for-a-new-teacher-license>
- Tennessee Department of Education (2017b). *Every student succeeds act: Building on success in Tennessee: ESSA state plan*. Published online. Retrieved from http://www.tennessee.gov/assets/entities/education/attachments/ESSA_state_plan.pdf
- Thoonen, E.E., Slegers, P.J., Oort, F.J., Peetsma, T.T., & Geijsel, F.P. (2001). How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices. *Educational Administration Quarterly*, 47(3), 496-536. Retrieved from http://iowaascd.org/files/5413/2543/9684/How_to_Improve_Teaching_Practices.pdf
- Torres-Guzman, M.E., & Goodwin, A.L. (1997). Mentoring bilingual teachers. *FOCUS: Occasional Papers in Bilingual Education*, 12, 1-12. Retrieved from http://www.ncela.ed.gov/files/rcd/BE020381/Torres_Guzman___Goodwin.pdf
- Tran, Y. (2015). ESL pedagogy and certification: Teacher perceptions and efficacy. *Journal of Education and Learning*, 4(2), 28-42. doi:10.5539/jel.v4n2p28
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805. Retrieved from http://mxtsch.people.wm.edu/Scholarship/TATE_TSECapturingAnElusiveConstruct.pdf
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2006). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23(1), 944-956. doi: 10.1016/j.tate.2006.05.003
- U.S. Department of Education, National Center of Education Statistics. (2012a). *Schools and staffing survey*. Retrieved from https://nces.ed.gov/surveys/sass/tables/sass1112_2013314_t1s_001.asp
- U.S. Department of Education, National Center of Education Statistics. (2012b). *Schools and staffing survey*. Retrieved from https://nces.ed.gov/surveys/sass/tables/sass1112_2013314_t1s_002.asp

- von der Embse, N.P., Kilgus, S. P., Solomon, H.J., Bowler, M., & Curtiss, C. (2015). Initial development and factor structure of the educator test stress inventory. *Journal of Psychoeducational Assessment, 33*(3), 223-237. doi: 10.1177/0734282914548329
- von der Embse, N.P., Sandilos, L.E., Pendegast, L., & Mankin, A. (2016). Teacher stress, teaching-efficacy, and job satisfaction in response to test-based educational accountability policies. *Learning & Individual Differences, 50*, 308-317. doi 10.1016/j.lindif.2016.08.001
- Wagner, R. (2011). The impact of vicarious experiences and field experience classroom characteristics on preservice elementary science teaching efficacy. *Electronic Journal of Science Education, 15*(2), 1-28. Retrieved from <http://ejse.southwestern.edu/article/viewFile/7336/6993>
- Woolfolk Hoy, A., & Davis, H. A. (2005). Teachers' sense of efficacy and its influence on the achievement of adolescents. In T. Urdan & F. Pajares (Eds.), *Adolescence and education: Volume V: Self-efficacy beliefs during adolescence* (pp. 117–137). Greenwich, CT: Information Age.
- Wyatt, M. (2016). Are they becoming more reflective and/or efficacious? A conceptual model mapping how teachers' self-efficacy beliefs might grow. *Educational Review, 68*(1), 114-137. doi: 10.1080/00131911.20115.1058754
- Yazdanpanah, L.K. (2015). A quantitative investigation of ESL teacher knowledge in Australian adult education. *The Electronic Journal for English as a Second Language, 18*(4), 1-24. Retrieved from <https://eric.ed.gov/?id=EJ1057319>
- Yilmaz, C. (2011). Teachers' perceptions of self-efficacy, English proficiency, and instructional strategies. *Social Behavior and Personality, 39*(1), 91-100. doi: 10.1016/j.sbspro.2010.03.084
- Zee, M., & Koomen, H.M.Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being. *Review of Educational Research, 86*(4), 981-1015. doi: 10.3102/0034654315626801
- Zee, M., Koomen, H.M.Y., Jellesma, F.C., Geerlings, J., & de Jong, P.F. (2016). Inter- and intra-individual differences in teachers' self-efficacy: A multilevel factor exploration. *Journal of School Psychology, 55*(1), 39-56. doi: 10.1016/j.jsp.2015.12.003

APPENDIX A

Overview of Predictor Variables

Predictor Variable	Narrative Definitions & Survey Items	Self-Efficacy Factor(s)	Type of Variable
Route to licensure	<p>Definition: Refers to the process the teacher went through to become a licensed Tennessee ESL teacher.</p> <p>Survey item: Select the route that you took to become a licensed TN ESL teacher:</p>	ME* VE	<p>Nominal:</p> <ul style="list-style-type: none"> • Add-on endorsement • Traditional licensure with student teaching • Practitioner/transitional license
Practicum experience	<p>Definition: Refers to times the teacher went into a classroom to learn how to apply the ESL coursework in an authentic setting.</p> <p>Survey Item: How many practicum hours did your ESL certification program require?</p>	ME VE	<p>Ordinal:</p> <p>Level 1: 0 Level 2: 1-9 Level 3: 10-19 Level 4: 20-29 Level 5: 30+</p>
Mentoring	<p>Definition: Refers to “an intense, dyadic relationship in which the mentor furthers the professional and personal development of the protege by providing information, assistance, support and guidance” (Torres-Guzman & Goodwin, 1997, p.1).</p> <p>Survey: Did your ESL certification program or school district provide you with a mentor ESL teacher?</p>	ME VE SP	<p>Nominal:</p> <p>Yes No</p>
Years of teaching experience prior to becoming an ESL teacher	<p>Definition: Refers to the number of years they taught before teaching ESL. This is especially pertinent to add-on endorsement ESL teachers.</p> <p>Survey: How many years of teaching experience did you have before you began teaching K-12 ESL?</p>	ME	<p>Ordinal:</p> <p>Level 1: 0 Level 2: 1-3 Level 3: 4-6 Level 4: 7-9 Level 5: 10+</p>

Years of experience as an ESL teacher	Definition: Refers to number of years of experience teaching ESL. Survey: How many years have you been a practicing, licensed K-12 ESL teacher? (Select 0 if you have not completed your first year.)	ME	Ordinal: Level 1: 0 Level 2: 1-3 Level 3: 4-6 Level 4: 7-9 Level 5: 10+
Number of ESL teachers at school	Definition: Some ESL teachers work alone, and some ESL teachers have colleagues they work closely with at their school(s). Survey: How many ESL teachers are at your school(s). If you teach at multiple schools, select the school with the largest number of ESL teachers.	SP	Ordinal: Level 1: 1 Level 2: 2 Level 3: 3 Level 4: 4 Level 5: 5+

*Note: ME=Mastery experience; VE=Vicarious experience; SP=Social persuasion

APPENDIX B

Tennessee ESL Teachers' Self-Efficacy

(Qualtrics® export)

Start of Block: Informed Consent

IC By clicking the “Agree” box below, you are consenting to participate in the study and affirm that you are 18 or over.

Click **HERE** for the informed consent document. After reading, use the browser "back" button to continue with the survey.

If you do not wish to volunteer for this study, simply close your browser window.

Agree (1)

End of Block: Informed Consent

Start of Block: Demographics

Q1 Are you currently a practicing, licensed K-12 ESL teacher in Tennessee?

Yes (1)

No (2)

Q2 Select your sex:

Male (1)

Female (2)

Q3 What is your age range in years?

- <25 (1)
 - 26-35 (2)
 - 36-45 (3)
 - 46-55 (4)
 - 56+ (5)
-

Q4 What is your ethnicity?

- American Indian or Alaska Native (1)
 - Black or African American (2)
 - Caucasian non-Hispanic (3)
 - Hispanic (4)
 - Asian (5)
 - Pacific Islander (6)
-

Q5 Is English your first language?

- Yes (1)
 - No (2)
-

Q6 Are you fluent in a language other than English?

- Yes (1)
 - No (2)
-

Q7 Select your level of education.

- Bachelor's degree (1)
- Master's degree (2)
- Master's +30 (3)
- Education Specialist (Ed.S) (4)
- Doctorate (5)

End of Block: Demographics

Start of Block: Experience

Q8 Did your ESL certification program or school district provide you with a mentor ESL teacher?

- Yes (1)
 - No (2)
-

Q9 How many practicum hours did your ESL certification program require?

- 0 (1)
 - 1-9 (2)
 - 10-19 (3)
 - 20-29 (4)
 - 30+ (5)
-

Q10 How many years of teaching experience did you have before you began teaching K-12 ESL?

- 0 (1)
 - 1-3 (2)
 - 4-6 (3)
 - 7-9 (4)
 - 10+ (5)
-

Q11 How many years have you been a practicing, licensed K-12 ESL teacher? (Select 0 if you have not completed your first year of teaching ESL).

- 0 (1)
- 1-3 (2)
- 4-6 (3)
- 7-9 (4)
- 10+ (5)

Q12 Select the route that you took to become a licensed ESL teacher.

- add-on endorsement to an existing teaching license (1)
 - traditional licensure with student teaching experience (2)
 - practitioner's license (also known as a transitional license and requires passing PraxisII TESOL and enrolling in ESL coursework) (3)
-

Q13 Where did you receive ESL teacher preparation?

- in Tennessee (1)
- a different state (2)
- a different country (3)

End of Block: Experience

Start of Block: Current Teaching Placement

Q14 How many English learners are you responsible for teaching?

- <10 (1)
 - 11-20 (2)
 - 21-30 (3)
 - 31-40 (4)
 - 41+ (5)
-

Q15 Select the ESL service model your school(s) utilizes:

- pull-out (students taken out of a class for ESL) (1)
 - push-in (inclusion environment) (2)
 - ESL center school (ESL students are bused to your school) (3)
 - scheduled ESL periods (teacher of record; students have ESL on their schedule) (4)
-

Q16 How many ESL teachers are at your school(s)? If you teach at multiple schools, use the school with the greatest number of ESL teachers.

- 1 (you are the only ESL teacher at your school(s)) (1)
 - 2 (2)
 - 3 (3)
 - 4 (4)
 - 5+ (5)
-

Q17 How many schools do you currently serve as an ESL teacher

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5+ (5)

End of Block: Current Teaching Placement

Start of Block: Teachers' Sense of Efficacy Scale - Short Form

Q18-29 Directions: This section of the questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for ESL teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

How much can you do?									
	Nothing (1)	... (2)	Very Little (3)	... (4)	Some Influence (5)	... (6)	Quite a Bit (7)	... (8)	A Great Deal (9)

How much can you do to control disruptive behavior in the classroom? (1)

How much can you do to motivate students who show low interest in school work? (2)

How much can you do to get students to believe they can do well in school work? (3)

How much can you do to help your students value learning? (4)

To what extent can you craft good questions for your students? (5)

How much can you do to get children to follow classroom rules? (6)

How much can you do to calm a student who is disruptive or noisy? (7)

How well can you establish a classroom management system with each group of students? (8)

How much can you use a variety of assessment strategies? (9)

To what extent can you provide an alternative explanation or example when students are confused? (10)

How much can you assist families in helping their children do well in school? (11)

How well can you implement alternative strategies in

your
classroom?
(12)

End of Block: Teachers' Sense of Efficacy Scale - Short Form

APPENDIX C

Permission Letter



ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear Anna Carrie Flynt

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy the scoring instructions can be found at:

<http://u.osu.edu/hoy.17/research/instruments/>

Best wishes in your work,

A handwritten signature in cursive script that reads "Anita Woolfolk Hoy".

Anita Woolfolk Hoy, Ph.D.
Professor Emeritus

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APPENDIX D

Internal Review Board Exemption

Date: 10-12-2017

IRB #: PRO-FY2018-40

Title: Tennessee ESL Teachers' Self-Efficacy: A Predictive Correlational Study

Creation Date: 7-29-2017

End Date:

Status: Approved

Principal Investigator: Anna Flynt

Review Board: University of Memphis Full Board

Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision Exempt
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Key Study Contacts

Member Anna Flynt	Role Principal Investigator	Contact aflynt@memphis.edu
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Member Clif Mims	Role Co-Principal Investigator	Contact clifmims@memphis.edu
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Member Anna Flynt	Role Primary Contact	Contact aflynt@memphis.edu
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