# THE RELATIONSHIP BETWEEN SELF-EFFICACY, YEARS OF EXPERIENCE, AND STRESS SCORES FOR SPECIAL EDUCATION TEACHERS IN CENTRAL TENNESSEE

by

Deborah Joy Ellison

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

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## ABSTRACT

The purpose of this quantitative, correlational study was to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers in central Tennessee. High levels of stress for special education teachers have impacted classrooms and education systems in recent years. This study built on previous and existing research on special education teacher stress by studying how stress impacts feelings of teacher self-efficacy for special education teachers and whether years of teaching experience plays a role in this. The 74 participants came from a convenience sample of elementary, middle, and high school special education teachers at an urban school district in Central Tennessee. The study utilized the Teacher Stress Inventory (TSI) to measure stress scores and the Teacher Sense of Efficacy Scale (TSES) to measure self-efficacy. Data from these instruments were collected using an online survey sent by email to potential participants and were analyzed using a multiple linear regression. The study's results showed no statistically significant relationship between the stress subscale scores, self-efficacy scores, and years of experience. Further research on this topic is suggested as the present study was limited to certain subscales of the TSI. Recommendations for future research also included a larger sample size, the use of different instruments, and expanding the geographical area of participants.


*Keywords*: Teacher stress, self-efficacy, experience, Teacher Stress Inventory (TSI), Teacher Sense of Efficacy Scale (TSES)

## Dedication

This dissertation is dedicated to the friends and family who have supported me and sacrificed with me to allow me to reach this point in my education. To my parents, who were committed to my education from the beginning. To my friends, who have been there through the tears and challenging times where I sometimes wanted to give up. To Eli, who has supported me through four degree programs and has always encouraged me to push myself further.

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## List of Abbreviations

Individualized Education Program (IEP)

Teacher Stress Inventory (TSI)

Teachers' Sense of Efficacy Scale (TSES)

Institutional Review Board (IRB)

Variance Inflation Factor (VIF)

Statistical Package for the Social Sciences (SPSS)

Organization for Economic Cooperation and Development (OECD)

Ohio State Teacher Efficacy Scale (OSTES)

English as a Second Language (ESL)

English to Speakers of Other Languages (ESOL)

Science, Technology, Engineering, and Mathematics (STEM)

Teacher Candidates (TCs)

Teachers of Record (TOR)

# CHAPTER ONE: INTRODUCTION

## Overview

The purpose of this quantitative, correlational study was to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers. Chapter One provides a background for stress for teachers, self-efficacy in teachers, and impacts of experience level. The background information includes an overview of the theoretical framework for this study. The problem statement scrutinizes the span of current and recent literature on the topic. The purpose of the study is followed by the significance of the study as well as the research questions for the current study. The chapter finishes with key terms relevant to the study and their definitions.

## Background

High levels of teacher stress are becoming an increasing concern in the field of education, impacting not only teachers but student, school, and system outcomes (Embse et al., 2019; Ismail et al., 2019; Taddei et al., 2019). Although high teacher stress levels are not a new problem in the field of education, research shows that these stress levels have been increasing in recent years (Loewus, 2021; OECD, 2020; Raikou et al., 2021). Stress and feelings of self-efficacy for special education teachers are influenced by many factors within the education system and society. Both topics have been researched extensively, however, there is limited research on the relationship between stress, teaching experience, and self-efficacy.

### Historical

McIntyre (1983) found that teacher stress levels were strongly impacted by interactions with school administration and other school staff, as well as including procedures regarding paperwork, and stressors coming from a lack of feeling appreciated. Burchielli and Bartram

(2006) found that there were a multitude of reasons that led to teachers experiencing stress. These stress factors included school environment, funding deficits and a lack of resources required to meet needs of teachers and students, and tensions arising from conflicts between school staff or students relating to policies or school and administrator expectations. This means that educators experiencing stress was an area of concern several decades ago, and research shows that this continues to be a problem today. A more recent study conducted by Farmer (2020) found that educators experienced stress with similar stressors of paperwork and deadlines and a lack of a positive environment. Unfortunately, this shows that there has been minimal progress in recent years in reducing the stress levels of educators. This is concerning as research has shown that high stress levels for teachers can have many negative impacts on the education system (Embse et al., 2019; Ismail et al., 2019).

**Society-at-Large**

Sharp-Donahoo et al. (2018) completed a study regarding interactions and situations between school staff members and found special education teachers experienced high levels of stress, particularly from interactions between staff and administration. The interactions between staff members and administrators can create a positive or negative work environment, either of which has an impact on educator's social-emotional well-being (Garwood et al., 2018). In a study completed by Kim and Lim (2016), it was found that emotional stress factors played a large role in the stress levels of teachers. The study found that emotional and social stress factors stemming from interactions with staff and students had an impact on not only the mental health of teachers, but the physical health as well. Platsidou and Agaliotis (2017) found that emotional factors specifically stemming from work-related factors caused stress for special education teachers. Similarly, Kerr and Brown (2016), found that emotional stress factors had an impact on

the health and well-being of special education teachers. These studies show that educators experience stress not only from the demands of the job, but also from social interactions with administrators, other staff members, and students.

Most teachers experience stress due to experiences relating to their work environments and situations (Farmer, 2020). While almost all educators experience stress in some form, special education teachers often experience even greater stresses and different stressors than their general education counterparts (Haydon et al., 2018). Teacher stress levels have affected not only teachers, but school level results including school climate, behavior management, and burnout (Embse et al., 2019). Teacher burnout is not only a concerning situation for teachers themselves, but also for the students in these classrooms who are then impacted by teacher burnout (Taddei et al., 2019). Unfortunately, in many cases educational stakeholders and those in charge of policy changes do not have an accurate understanding of the stress levels that can be encountered for individuals employed in the education field. Stressors impacting teachers can include factors in areas such as preparation, school leadership, and state mandates (Hester et al., 2020). Ismail et al. (2019) found that when considering leadership styles, one of the best styles of leadership for a school environment is the authentic leadership style. They found this style to have a positive impact on many aspects of the school environment, including the overall school setting, reducing high teacher stress levels, and positively benefitting teachers' sense of feeling supported and included in school leadership decisions and school culture.

**Theoretical Background**

The theoretical background for studying the relationships between teacher stress levels, teaching experience, and self-efficacy in special education teachers is grounded in Maslow's (1943) hierarchy of needs and Bandura's (1977) theory of self-efficacy. Maslow (1943), a

humanist in the field of education had theories regarding the importance of basic human needs being met that can be related to teacher stress levels. Maslow's hierarchy of needs contained the ideas that a great percentage of human choices or behaviors stem from the fulfillment or lack of fulfilment of basic human needs (Maslow, 1943). He believed that the most important human needs to be met before all others include the needs for food, water, and shelter. Just as students need their basic needs to be met, teachers also need their basic needs to be met. Teachers who have negative or unsafe environments are likely to not be able to perform the functions of their job well. The lack of basic needs such as safety can cause teachers to have higher stress levels and not be able to teach to the best of their abilities.

Bandura's (1977) theory of self-efficacy is also foundational for studying the relationships between teacher stress levels, teaching experience, and self-efficacy in special education teachers. Bandura (1994) believed that a person's feelings of stress or other negative emotions not only encompassed a physical response, but also had an impact on their mood and feelings of self-efficacy. According to this theory, if a teacher is feeling tired, stressed, overwhelmed, sick, or experiencing other negative emotions, they are more likely to lack feelings of self-efficacy and as a result, doubt their abilities to do their job. Bandura (1977) suggested that a person's own self-efficacy heavily impacted the way they approached tasks and daily activities. Teachers can experience low self-efficacy due to negative experiences in the workplace (Bandura, 1977). Self-efficacy impacts many areas within the classroom and school system, including teaching habits and experiences of special education teachers. Poor self-efficacy can lead to adverse outcomes for teachers, schools, and the education system.

## Problem Statement

Teachers are often known to experience high levels of stress due to factors related to their job expectations and work environment (Farmer, 2020). Anderson et al. (2019) examined teacher well-being and found that a vast majority of teachers surveyed had experienced high levels of stress and anxiety relating to the evaluation process and felt that this stress had negatively impacted their classroom teaching and classroom environments. Studies have found that special education teachers experience stress from factors in addition to what general education teachers experience, including stress from factors such as needing to show proof of student progress towards Individualized Education Program (IEP) goals (Kokkinos & Davazoglou, 2009; Love et al., 2020). According to the Learning Policy Institute, two-thirds of teachers who leave the profession leave because of dissatisfaction with school or district leadership, salary concerns, pressure from job requirements, and poor working conditions (Carver-Thomas & Darling-Hammond, 2017). Special education teachers who leave the profession typically leave earlier than those who teach general education, often creating shortages of special education teachers (Viel-Ruma et al., 2010).

Research shows that teacher stress has a negative impact on both teachers and students (Ingersoll, 2012; Love et al., 2020). Teacher stress can impact a teacher's teaching styles and decisions, which impact the students in that teacher's classroom (Asaloei et al., 2020). Previous research has been done to study the impacts of stress on teacher job performance (Asaloei et al., 2020; Burchielli & Bartram, 2006). However, this research does not focus on the relationship between teacher stress and self-efficacy. Another recent study focused on stress and the impacts it has on the mental health of special education teachers (Haydon et al., 2018). However, this also did not specifically focus on the relationship between stress and self-efficacy. Karabatak and

Alanoglu (2019) studied the relationship between teacher stress feelings of self-efficacy, but the research was conducted within a small geographical region, and the researchers recommended future repeated research with different sample sizes.

The current study builds on existing research on special education teacher stress by studying how stress impacts feelings of teacher self-efficacy for special education teachers and whether or not years of teaching experience plays a role in this. While research has been done on special education teacher stress and its' impacts (Haydon et al., 2018; Kokkinos & Davazoglou, 2009; Love et al., 2020), there is still a gap in the research when considering the relationship between special education teacher stress and their feelings of self-efficacy. The problem is that it is not known if there is a relationship between special education teachers' stress levels, years of experience, and feelings of self-efficacy (Haydon et al., 2018; Karabatak & Alanoglu, 2019).

## Purpose Statement

The purpose of this quantitative explanatory correlational study is to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers in central Tennessee. Factors such as support from administration, emotional stress factors, and state mandates have all been found to cause stress for special education teachers (Haydon et al., 2018; Hester et al., 2020). Few recent studies have looked at the relationship between these stress levels and feelings of self-efficacy for special education teachers. The focal point of this study is to determine if a significant relationship exists between stress levels and feeling of self-efficacy for teachers of various special education teaching placements in central Tennessee.

The predictor variables in this study are teacher stress levels and years of experience. Teacher stress can be defined as overwhelming negative emotions such as anger, anxiety,

frustration, and feelings of inadequacy in regard to meeting the demands of the profession (Karabatak & Alanoglu, 2019). Years of experience for the purpose of this study will be categorized into groups of 0-5 years, 6-10 years, and more than 10 years of teaching experience. The criterion variable is teacher feelings of self-efficacy. Self-efficacy can be defined as a feeling of a teacher's own general ability to provide the opportunities and instruction necessary to achieve desired or expected results (Isbell & Szabo, 2015). The two instruments used in this study are the TSI and the TSES. The participants in the study come from a convenience sample of special education teachers at a large public city school district in central Tennessee. The participants teach in various classroom settings and have differing lengths of teaching experience.

## Significance of the Study

Cancio et al. (2018) researched stress levels and coping skills and found that tiredness from work and overwhelming expectations were some of the most common contributing stress factors that needed to be managed. When considering an educational environment, it is important that the teachers in each classroom be focused on the needs of the students and their work with these students. When teachers experience stress at high levels, it can spill over into their experiences and interactions with students in their classrooms.

Maslow (1943) believed that all individuals must have their own needs such as food, health, and safety met before being able to focus on other areas of need. It is likely that this can be followed with the idea that teachers must have their needs met such as a positive and encouraging work environment, and low or manageable stress levels, to then be able to best proceed with meeting the needs of their students. Once the needs of the teachers are adequately met, the needs of the students can then be focused on. This study will be significant in this area

because it will show the impacts that stress levels have on teachers' feelings of self-efficacy regarding their teaching in the classroom. Teacher's feelings of self-efficacy regarding their own teaching are a key indicator of how well the needs of the students in a classroom are being met. Additionally, the study will show the impacts the high levels of stress for teachers has on the classroom environment and teaching as reported by educators themselves through self-efficacy ratings.

The results of this study offer empirical data regarding the stress levels of special education teachers and the relationship between feelings of self-efficacy and the linear combination of these stress levels and teacher years of experience. This is shown using empirical data gathered from the administration of the TSI and the TSES. The TSI was designed with the goal of measuring occupational stress experienced by teachers working in the United States. (Fimian, 1988). It was used in this study to measure self-reported stress levels of special education teachers participating in the study. The TSES was designed following Bandura's recommendations for how to create question items with the purpose of measuring teacher feelings of self-efficacy (Tschannen-Moran & Hoy, 2001). The TSES was used to measure self-reported levels of self-efficacy for the same group teacher participants. The implications of the data collected are likely to be that there is a need to reduce stress levels of special education teachers to ensure that they are best able to provide a positive and productive educational experience for the students in their classrooms.

It is important to continue to add to the research regarding stress levels of special education teachers to continue to improve upon the teaching profession. Stress levels for special education teachers are something that occurs in many different cultures and within teachers of various nationalities. Braun-Lewensohn (2016) found that culture has a significant impact on the

methods educators use to manage stress, finding that personal beliefs was at the forefront of considerations when teachers focus on stress management strategies. Additionally, culture was found to play a role in determining the scenarios that might cause stress for teachers with, individuals from different cultures finding different situations to be stressful and others not to be stressful.

## Research Questions

**RQ1**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of time management for special education teachers in Central Tennessee?

**RQ2**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of work-related stressors for special education teachers in Central Tennessee?

**RQ3:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional distress for special education teachers in Central Tennessee?

**RQ4:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of discipline and motivation for special education teachers in Central Tennessee?

**RQ5:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional investment for special education teachers in Central Tennessee?

## Definitions

1. *Authentic leadership style*–a leadership style focusing on positive and impactful relationships and focuses on stakeholder involvement (Ismail et al., 2019).
2. *Burnout*–an often-overwhelming feeling of exhaustion relating to job requirements, expectations, and stress levels which often leads to the individual leaving employment (Fabbro et al., 2020).
3. *Coping strategy*–a productive method of dealing with and working through a person's own individual problems including stress factors or disagreements that cause stress (Kebbi, 2018).
4. *Hierarchy of needs*–Abraham Maslow's idea that there are certain needs that should be met before other needs. Needs are categorized according to physiological, safety, belonging, esteem, and self-actualization (Schunk, 2016).
5. *Self-efficacy*–in teachers, beliefs in their abilities to make a difference in student learning, including reaching challenging students, in the areas of instructional strategies, student engagement, and classroom management (Tschannen-Moran, 2022).
6. *Teacher*–a licensed educator who is responsible for the daily education of students or operations in a classroom (McIntyre, 1983).
7. *Teacher stress*–overwhelming negative emotions such as anger, anxiety, frustration and feelings of inadequacy in regard to being able to meet the demands of the profession (Karabatak & Alanoglu, 2019).
8. *Teacher stress scores*–scores obtained from adding the 10 subscale scores of the TSI and dividing by ten to achieve a total stress score (Fimian, 1988).

9. *TSES*–a questionnaire designed to analyze teacher feelings of self-efficacy in the categories of instructional strategies, student engagement, and classroom management (Tschannen-Moran & Hoy, 2001).
10. *TSI*–a questionnaire designed to measure teacher stress intended for research on teacher stress, teacher self-monitoring of stress, or districts attempting to measure system-wide teacher stress (Fimian, 1988).
11. *Work-related stress*–stress caused from factors that are related to the work environment. In education, this is focused on the ideas that these factors impact teacher performance and school and classroom effectiveness (Asaloei et al., 2020).

# CHAPTER TWO: LITERATURE REVIEW

## Overview

A comprehensive review of the literature was conducted to identify studies that focused on teacher stress levels, feelings of self-efficacy, and teacher experience levels. This chapter presents the overall findings from this review, including the theoretical frameworks of Maslow's hierarchy of needs, and Bandura's theory of self-efficacy. Additional research on sources of teacher stress, stress for special education teachers, coping skills, and teacher feelings of self-efficacy is also included, supporting the importance of the present study. The chapter concludes by communicating how the present study addresses the gap in research considering the relationship between special education teacher stress, special education teacher feelings of self-efficacy, and length of teaching experience.

## Theoretical Framework

### Maslow's Hierarchy of Needs

Abraham Maslow's hierarchy of needs is foundational in studying teacher stress levels and feelings of self-efficacy. Maslow developed a hierarchy of needs centralized on motivation and the psychology behind it (Maslow, 1943). Maslow's hierarchy is based on the premise that needs lower on the hierarchy must be satisfied before a person can focus on needs in the higher levels of the hierarchy. The hierarchy of needs begins with the category of physiological needs and continues to categories of safety and security, belongingness and affection, self-respect, self-actualization, knowledge and understanding. While Maslow initially suggested that lower needs must be satisfied before the higher levels of the hierarchy, he later explained that the lowest needs do no need to be fully satisfied to the highest extent possible before the next levels of needs can be addressed (Maslow, 1987). However, the foundation of the theory is that the

motivation to fulfill lower needs outweighs the motivation to progress towards further needs until the most essential needs are met (Maslow, 1943). According to Maslow's hierarchy, the lowest needs such as food, water, and shelter should be met before other needs and expectations can take priority.

Maslow's theory (1943) states that the most basic needs must take priority over other needs for an individual. The theory is foundational in studying the behavior of teachers because it lays the ground for the concept that a teacher's basic needs must be met before they can focus attention on other needs such as their teaching responsibilities and careers. Teachers have many responsibilities as they attempt to meet the needs of students, families, and other educational stakeholders. Teachers have reported their reasons behind entering the teaching profession to include a desire to influence the development of youth, as well as personal reasons such as intellectual satisfaction, the need to have a salary, and long breaks (Toraman & Cakmak, 2020). However, teachers often experience challenges in meeting the lower needs of Maslow's hierarchy, making it difficult to focus on higher-level needs such as intellectual satisfaction and self-fulfillment. This can directly affect a teacher's motivation to teach and success as a teacher (Maslow, 1943).

Abraham Maslow would be considered a humanistic or existential psychologist because of his focus on the individual (Knight, 2006). Maslow's hierarchy of needs centers on the concept that most human choices and behaviors are based upon the need of fulfillment (Maslow, 1943). These needs can be placed into categories of physiological needs, safety needs, belongingness, esteem, and self-actualization. Maslow's hierarchy of needs plays an important role in the educational environment today because for an individual to be able to reach their full potential,

their basic needs must first be met. According to Maslow, these needs would not be met by children independently, but with the help of others.

Maslow also believed that if a person had not experienced a need being unmet, they might not view that need as important, due to having gone without that basic need for an extended period (Maslow, 1943). For example, if a person always lived in an environment that was unsafe or dangerous, they might not realize the importance of safety or the effects it would have on their own perception of needs even as an adult. Maslow found that if a child was behaving negatively, it was not because the student themselves was inherently bad, but that the negative behavior was due to the child's basic needs not being met adequately. Maslow showed that a person could potentially be aware of the need for safety, but not understand the complete capacity of a person's life that it impacts.

Maslow's research led him to find that the highest needs to be addressed first were the basic needs of physiological needs and safety needs (Maslow, 2013). These physiological needs include food, water, sleep, sexual desires, breathing, and homeostasis. Maslow described homeostasis as "the body's automatic efforts to maintain a constant, normal state of the blood stream" (p. 372) and noted that homeostasis is not pertinent to all physiological needs, but mainly those of food, water, and sleep. Maslow concluded that if these needs were not met, all other needs would become less important or even not important at all to a person, as that person becomes able to focus only on meeting these physiological needs. For example, for a person who is severely hungry, all other desires that they would typically pursue are ignored until they are able to satisfy the need for food (Maslow, 2013). This would mean that for teachers, the desire to teach or manage a classroom would be pushed to the side or ignored if these physiological needs were not met. Unfortunately, there are many times in today's educational environment where the

physiological needs of the teachers are not being met, such as when teachers need to work through lunch breaks or on personal time outside of school hours to manage their workloads (Bettini et al., 2020; Solomon & Lambie, 2020; Walker et al., 2021).

In addition to physiological needs, Maslow also addressed safety needs including the need for security of shelter, family, employment, financial stability, and resources such as health insurance and a savings account (Maslow, 2013). According to Maslow, a person with unmet needs in this area may seek these with a sense of urgency and may respond to threats to these needs with panic and withdrawal. Teachers, as any other adults, desire that these safety needs of shelter, security in employment, benefits, and financial stability be met before they can meet any other demands placed on them. Many educators today find that they experience challenges with meeting their own needs of safety, such as a lack of financial stability due to low pay, lack of time with family due to working outside of school hours, and a lack of employment security due to high-stakes employment decisions being made based off evaluation scores that many feel are out of their control (Bettini et al., 2020; Paige et al., 2019; Walker et al., 2021).

Once one's basic needs are met, an individual can shift towards a focus on the psychological needs of belonging, affection, and esteem (Maslow, 1943). The needs of belonging and affection include relationships with family and friends, as well as a desire to have a place of belonging in a group (Maslow, 2013). Maslow also states that in this level, the giving of love but also the receiving of love are both desired. Esteem needs include the needs of self-esteem and self-respect, as well as respect from others, independence, and freedom. This level of needs applies directly to educators, as research has shown some of the top areas of stress reported by educators include support or lack of support from administration and other teachers, as well

feeling a sense of belonging or lack of belonging among other staff and students who are part of the school environment (Farmer, 2020; Harmsen et al., 2019; Haydon et al., 2018).

The final category of needs according to Maslow (1943) is that of self-actualization. This is the highest level of needs in Maslow's hierarchy. Maslow (1987) reported that not all individuals will ever reach this category, in which a person reaches self-fulfillment. Maslow (2013) states "Since, in our society, basically satisfied people are the exception, we do not know much about self-actualization, either experimentally or clinically" (p. 383). However, what is known is that self-actualization will look different for each person, as each person's inner desires are different (Maslow, 2013). For teachers who have a true inner desire to teach, they will not reach self-actualization if they are doing something other than teaching. Wentzel and Miele (2016) found that in the educational environment, a teacher's sense of self-efficacy related back to the teacher's level of personal success as a teacher, as well the success levels and achievements of the students in that teacher's classroom.

Maslow later expanded upon his theories through studies of two professors he found to have positive characteristics in addition to being excellent educators (Maslow, 1987). Maslow, himself a teacher, wanted to find out what specifically made these professors different than others in their field (Maslow, 1987). The work and behaviors of these two professors, Ruth Benedict and Max Wertheimer, were highly influential in the development of Maslow' theories as they applied to educators. Maslow viewed these two individuals as friends and mentors, and studied and recorded their behaviors, categorizing both as having peak mental health as well as a full grasp on their potential and abilities (Hoffman, 1988). In studying the behaviors of Wertheimer and Benedict, Maslow (1987) concluded that the implications of their behaviors could be generalized to others in the areas of human motivation and potential.

**Bandura's Theory of Self-Efficacy**

Bandura's (1977) theory of self-efficacy is foundational for studying the relationships between teacher stress levels, teaching experience, and self-efficacy in special education teachers. Bandura described self-efficacy as an individual's belief in his or her own ability to reach specific performance attainments. This theory of self-efficacy supports the idea that a person's perception of their ability to complete a task is influenced by many factors (Bandura, 1977). A teacher's self-efficacy is their belief in their ability to foster motivation and achievement in their students (Tsui, 2018).

Bandura (1977) suggested that a person's own self-efficacy heavily impacted the way they approached tasks and daily activities. Self-efficacy in this circumstance refers to a person's manner of working towards goals and completing tasks. Bandura found that a person's self-efficacy was influenced by their social surroundings, as well as cognitive, behavioral, and other influences. Wentzel and Miele (2016) and Martins et al. (2015) found that in the educational environment, a teacher's sense of self-efficacy related back to the teacher's perceived level of success as a teacher, as well the success levels and achievements of the students in that teacher's classroom.

Bandura (1994) theorized that self-efficacy was impacted by four primary sources: mastery experiences, vicarious experiences through social models, social persuasion, and physical and emotional states. Bandura described the first of these, mastery experiences, to be the most important of the four sources. According to Bandura's theories, when a person experiences success or mastery it positively influences feelings of self-efficacy, while when one experiences failure, it negatively influences feelings of self-efficacy. Morris et al. (2017) found that people who have high self-efficacy tend to believe their failures are due to not trying hard

enough or due to factors outside of their control. However, people with low self-efficacy see their failures as a reflection of their own lack of ability (Morris et al., 2017). Studies have found that mastery experiences are significantly correlated to feelings of self-efficacy in teachers (Ford et al., 2017; Martins et al., 2015). If a teacher views their previous teaching experiences as unsuccessful, they are likely to see their future experiences in a similar manner (Ford et al., 2017). The present study seeks to further these findings by determining if stress levels and years of experience also have a significant relationship with feelings of self-efficacy for special education teachers.

Vicarious experiences refer to watching others succeed. Bandura found that watching others experience success was another way to increase one's own feelings of self-efficacy (Bandura, 1994). Watching a person with similar traits or experiences succeed would increase one's own feelings of efficacy and observing such a person in failure would decrease one's own feelings of efficacy. Watching an experienced person perform a task well will increase self-efficacy in the observer and watching such a model fail to complete a task will decrease the observer's self-efficacy (Tsui, 2018). It is important for early career teachers to observe veteran educators experiencing success to increase feelings of self-efficacy.

Bandura (1994) theorized that social persuasion could drive feelings of self-efficacy. He found that supportive and encouraging social interactions with others increases one's motivation and self-efficacy. Tsui (2018) described the needed social supports as "support that a teacher receives from administrators, colleagues, parents, students, and the community of the teaching setting" (p. 106). Martinez and Broemmel (2021) found that teaching self-efficacy was linked to feelings of support in professional settings, specifically within educational settings and given support by administration and peers. This means that positive support from school and district-

based leadership and colleagues is important to maintain positive feelings of self-efficacy in teachers.

The final source of self-efficacy according to Bandura is that of physical and emotional states. Bandura (1994) believed that a person's feelings of stress or other negative emotions not only encompassed a physical response, but also have an impact on their mood and feelings of self-efficacy. According to this theory, if a teacher is feeling tired, stressed, overwhelmed, sick, or experiencing other negative emotions, they are more likely to lack feelings of self-efficacy and as a result, doubt their abilities to do their job. Herman et al. (2018) added that ongoing negative emotions and feelings of low self-efficacy often contribute to teacher burnout and subsequently teachers leaving the profession. Additionally, Skaalvik and Skaalvik (2007) reported that educators who experience these negative emotions and low-self efficacy typically have a negative impact on student achievement levels.

Bandura's theory of self-efficacy is foundational to the present study because self-efficacy impacts many aspects of teaching and learning, including teaching habits and experiences of special education teachers. Teachers can experience low self-efficacy due to negative experiences in the workplace (Bandura, 1977). This can lead to adverse outcomes for teachers, schools, and the education system. For special education teachers, this is especially important as this group of educators works with students who often already experience challenges and learning gaps. Since self-efficacy plays such an important role in the educational environment, it follows that this theory of self-efficacy serves as the foundation to the present study.

# Related Literature

## Sources of Teacher Stress

Teachers experience stress from many factors relating to their work environments, influencing the classrooms and schools within which these educators serve (Hendawi, 2020). Research has shown that stress has a negative impact on teachers and students in the educational system (Ingersoll, 2012). Given the impact of teacher stress, it is critical to research the causes of teacher stress. One common source of stress for both general education teachers and special education teachers is a lack of preparation or an incomplete preparation resulting in feelings of inadequacy regarding the expectations of the teaching job. Harmsen et al. (2019) completed a study on the impacts and causes of teacher stress for beginning teachers going through an induction program when first entering a teaching program. The participants of the program were followed throughout their preparation program and first three years of teaching, with researchers intensely monitoring and comparing the teachers' stress levels throughout the study. The results of the study showed that the stress levels experienced by teachers in their first three years tended to decrease in the areas of stress relating to daily tasks as part of the job.

Studies have shown that teacher stress levels are also influenced by school climate and culture (Harmsen et al., 2019; Morris et al., 2020). School culture is impacted by leadership styles and affects not only teacher stress levels but also teacher job satisfaction. Harmsen et al. (2019) found that staff working in a school with a positive school culture tended to experience lower stress levels and greater satisfaction with their current positions than those with negative school cultures. Those with negative school cultures tended to experience less satisfaction with their current positions, expectations, and requirements. Ismail et al. (2019) conducted research on the topic of leadership and the results showed that one of the most beneficial and effective

leadership styles for a school administrator was an authentic leadership style. In a school setting, this style was found to have a positive impact on the school environment, aiding in reducing stress levels for teachers and increasing teacher feelings of support and inclusion (Ismail et al., 2019). Additionally, the research showed that the authentic leadership style was beneficial and productive in keeping teacher stress at a low level. The style of leadership within a school plays a significant role in the stress levels of teachers, students, and community stakeholders, and an authentic leadership style was found to be one of the most beneficial styles of leadership (Ismail et al., 2019).

Relationships and support among certified staff, support staff, and administration has been found to play a role in school culture (Atasoy, 2020; Lester et al., 2020; Morris et al., 2020). Studies have shown that educators feel more supported and valued when administrators are present, seen frequently throughout the school day, and collaborate often with staff (Morris et al., 2020). Lester et al. (2020) reported that school staff members held more positive feelings regarding school culture when they felt understood and supported by school leadership and felt that school staff worked well together to solve problems collaboratively. Educators' responses showed that they that they desire relationships among staff where they feel safe, warm, and welcomed.

### *Emotional Stress Factors*

Another factor that plays a role in school culture and teacher stress levels is emotional stress factors (Atasoy, 2020; Kim & Lim, 2016). In addition to coworker relationships and interactions, emotional stress factors can include circumstances such as student relationships and interactions, parent contacts and relationships, and internal feelings that educators experience (Haydon et al., 2018; Kim & Lim, 2016). Teachers often experience stress stemming from

challenges in working with individual students and attempting to meet their unique needs (Haydon et al., 2018).

Platsidou and Agaliotis (2017) found that empathy factors did not have a substantial impact on the predicted stress levels of teachers. These authors found that teachers who experienced higher levels of empathy did not necessarily have corresponding higher or lower stress levels than their counterparts who experienced lower feelings of empathy for students. Despite this finding, there are many emotional factors that play some part in the stress levels and emotional investment that teachers make as they strive to make a difference in the lives, education, and future of each student they encounter (Haydon et al., 2018). Given the researched impacts of teacher stress, it is important to further research relationships teacher stress has with other variables to continue to grow the knowledge on the scope of impacts of teacher stress.

Other emotional stress factors include those related to the relationships they have with students in their classroom (Gagnon et al., 2019; Haydon et al., 2018). These authors studied relationships between teachers and their students and found that the relationships between the teachers and students played an important role in the teachers' stress levels. Gagnon et al. (2019) utilized the Index of Teaching Stress and the Student-Teacher Relationship Scale to gather data using a regression analysis. The results of the study showed that the relationships between the students and the teachers accurately predicted the differences in stress levels between different teachers. Both studies showed that relationships between students and the teacher that were primarily conflictual predicted higher levels of stress for that teacher (Gagnon et al., 2019; Haydon et al., 2018). Gagnon et al. (2019) included other subcategories of relationships that were reported in their findings in addition to conflict, including closeness and dependency, although these did not have as significant an impact as conflict on teacher stress levels. Teachers

who had close relationships with students had a higher tolerance level for problem behaviors from those students and were less likely to experience frustration and loss of enjoyment as a teacher (Gagnon et al., 2019; Haydon et al., 2018).

### *COVID-19 Related Stress*

According to the Organization for Economic Cooperation and Development (OECD) (2020), being required to keep up with and adapt to consistently changing requirements regarding COVID-19 procedures and responses in schools is likely to cause educators to experience stress. Factors such as needing to establish new routines, new safety procedures, movement to virtual learning from face-to face learning, and student engagement challenges have all contributed to stress for educators during the COVID-19 pandemic (Auger & Formentin, 2021; Loewus, 2021; OECD, 2020; Santamaria et al., 2021). Although some experienced educators have reported having an easier time with establishing new routines during the pandemic, there has been an overall increase in teacher stress levels because of the pandemic (Loewus, 2021; OECD, 2020; Raikou et al., 2021). As stress levels for teachers continue to increase, it is critical to study the areas impacted by teacher stress levels to further develop the current research.

The COVID-19 pandemic has impacted most aspects of daily life for individuals worldwide (Oducado et al., 2021). The COVID-19 outbreaks have caused stress for individuals, communities, and entire nations and have been associated with poor mental health and psychological turmoil (World Health Organization, 2020). Educators are also experiencing high levels of stress and anxiety relating to the pandemic (Loewus, 2021; Oducado et al., 2021; Raikou et al., 2021). Teachers in a study by Oducado et al. (2021) reported levels of perceived stress related to COVID-19, with 31.4% of participants experiencing low stress, 61%

experiencing moderate stress, and 7.6% experiencing high stress. The results also showed that females experienced higher levels of COVID-19 related stress than males, and there was no significant difference in stress level based on marital status, salary, or the presence of COVID-19 cases near their residences (Oducado et al., 2021).

Teachers have reported having a more difficult time teaching than in years prior to the COVID-19 pandemic (Auger & Formentin, 2021; Loewus, 2021; OECD, 2020; Santamaria et al., 2021). Forty-one percent of OECD teachers reported that keeping up with teaching guidelines was already a challenge prior to the pandemic, and 84% of teachers reported that teaching had become more stressful during the pandemic than it had been in prior years (Loewus, 2021; OECD, 2020). The pandemic has added additional stressors, with the demands of school, home and life becoming more challenging to manage (Auger & Formentin, 2021; OECD, 2020). When asked if they planned to leave teaching within the next two years, 54% of teachers in one study said that they are somewhat or very likely to leave the profession in the next two years (Loewus, 2021). However, only 34% of those responding this way said that this would have been their response had they been asked prior to the start of the pandemic.

Teachers have had to come up with new routines and procedures to reduce contact and follow guidelines for safety (Alterman, 2020; OECD, 2020; Raikou et al., 2021). The World Health Organization (2020) recommended that those taking care of children work on maintaining routines and establishing new routines where needed. New routines have been necessary due to changes in educational formats and options for student access (Alterman, 2020). In some cases, this has meant moving away from routines teachers have used for many years, all while trying to mitigate the negative impacts this can have to learning progress (OECD, 2020). Educators have

had to respond to quickly changing circumstances with new routines to continue to provide students with opportunities to learn in a safe way (Raikou et al., 2021).

Educators have also reported challenges with engagement and motivation throughout teaching in the pandemic (Auger & Formentin, 2021; Kara et al., 2021). Educators stated that some of the factors contributing to their disengagement or motivation challenges were feelings of anxiety, stress, and difficulty finding a balance between work life and home life (Auger & Formentin, 2021; Kara et al., 2021). Educators also have struggled to find motivation while missing family members that cannot be seen in person due to lockdowns or safety restrictions and caring for children or other family members who were engaging in online learning from home (Auger & Formentin, 2021). Educators have found it difficult to focus on work and reported low motivation when attempting to complete work-related tasks during the pandemic (Kara et al., 2021).

Changes to educational delivery methods, such as the transition to virtual learning has also been a source of stress for educators during the pandemic (Auger & Formentin, 2021; Kara et al., 2021; Raikou et al., 2021). Educators have described feelings of increased stress anxiety after changes to virtual learning in classes that would typically be face-to-face (Kara et al., 2021; Raikou et al., 2021). Auger and Formentin (2021) found that requirements to move to virtual learning placed many teachers in positions where they had to change pieces of their courses, such as removing parts of science experiments that would involve collecting data. This led to educators feeling stress and concern as to how this would impact the outcomes of their students, as well as being a disappointment for the students and their parents (Auger & Formentin, 2021). Many educators have had to take care of children or other family members while trying to teach remotely (Auger & Formentin, 2021; Kara et al., 2021). Some teachers had to figure out how to

help their own children with learning challenges access remote learning, while still ensuring that their classroom students were getting the education and teaching they needed (Auger & Formentin, 2021; Kara et al., 2021). Others had to care for their older parents who needed assistance in learning to access new technology that was necessary for living in a pandemic world, all while trying to work remotely from home (Auger & Formentin, 2021).

### *Teacher Evaluation Systems*

Many teachers have experienced stress resulting from teacher evaluation procedures (Anderson et al., 2019; Lejonberg et al., 2018; Paufler, 2018). Teacher evaluations systems have been found to be controversial, with many teachers experiencing negative feelings regarding the systems and questioning the fairness of the evaluation systems and procedures (Anderson et al., 2019; Paige et al., 2019). Anderson et al. (2019) found that educators overwhelmingly experienced negative feelings towards the teacher evaluation process, with only a small portion of teacher experiencing positive feelings towards the process. Studies by Lejonberg et al. (2018) and Paufler (2018) reported that the stress from teacher evaluation systems caused decreases to morale among teachers. Educators have described increased levels of anxiety and stress from the evaluation process (Anderson et al., 2019; Paufler, 2018). Teachers have also reported that the stress often leads to them feeling so worried about the evaluation process that they are not able to be as focused on their students as they normally would be (Anderson et al., 2019). Studies have found that teachers often begin to enjoy their jobs less due to pressures and stress from the teacher evaluation process (Anderson et al., 2019; Lejonberg et al., 2018). Additionally, teachers have reported that evaluation systems can make them less likely to want to teach at higher need schools or in higher need subjects, where the potential risk of receiving low scores could be greater than schools that are typically high performing (Paige et al., 2019).

The research agrees that the high-stakes nature of many teacher evaluation systems causes stress and other negative implications for teachers (Anderson et al., 2019; Paige et al., 2019; Paufler, 2018; Warren & Ward, 2019). These high-stakes consequences of teacher evaluation results can include progress in careers, decisions on salary increases, additional responsibilities at work, and re-hiring decisions (Cuevas et al., 2018; Hunter, 2020). In addition, many teachers feel that high-stakes evaluation systems are not worthwhile because they do not help them to be better teachers (Warren & Ward, 2019). Many high-stakes evaluation systems include student test scores or grades as an evaluation factor (Cuevas et al., 2018; Gonzalez et al., 2017; Hunter, 2020; Mintz & Kelly, 2021). Some states, such as Tennessee, utilize a weighted evaluation system that includes a combination observation scores and student outcomes, with as much as 50% of the teacher's evaluation score coming from student outcomes such as testing and grades (Hunter, 2020; Paige et al., 2019). Teachers find this to be an unreliable measure of their effectiveness at their jobs, and have detailed increased feelings of stress, anxiety, and burnout when such high-stakes teacher evaluation systems are utilized (Cuevas et al., 2018; Warren & Ward, 2019).

Administrators have also expressed concern for the potentially negative impacts of the teacher evaluation systems in place in many states and school systems (Anderson et al., 2019; Paufler, 2018). Paufler (2018) found that administrators felt that high-stakes evaluation procedures had a negative impact on teacher morale. Over 88% of the administrators felt that the high-stakes evaluation system created a culture of intimidation within the district and schools and reported that their own morale had decreased as a result of the culture (Paufler, 2018). Some of the administrators participating in the study by Anderson et al. (2019) reported that they felt the evaluation system caused stress for teachers, reporting that it increased stress levels and made

the job more difficult for teachers. Other administrators, in contrast with the teachers, felt that although the evaluation did cause stress for teachers, it was worthwhile stress because they felt that the teachers worked together more collaboratively to improve evaluations (Anderson et al., 2019).

The often-controversial topic of teacher evaluation systems is one that is discussed by teachers, teachers' unions, educational administrators, educational researchers, and other stakeholders (Anderson et al., 2019; Paige et al., 2019). These stakeholders have often questioned the evaluation system because it is uncertain how factors outside of the teachers' control can impact the results of the scoring systems (Paige et al., 2019). Those against the use of these measures question if the measures are fair to teachers, especially in cases where high-stakes employment decisions are made on the basis of the evaluation scores. The researchers of the Anderson et al. (2019) study felt that while the responses of both the teachers and administrators were valid, it was important to note that the evaluation system did not work the way it was meant to work, and that it was likely to increase teacher turnover and job dissatisfaction when there was already a teacher shortage.

### *Stress Related to Special Education*

Special education teachers frequently have high workloads, which often causes them to feel stressed and overwhelmed (Bettini et al., 2020; Hester et al., 2020; Hogue & Taylor, 2020; Walker et al., 2021). Special education teachers are expected to manage a caseload of students, while also meeting the needs of their students (Walker et al., 2021). While some states have policies in place to limit the number of students on one teacher's caseload, many other states have no policies or guidelines, leaving caseload decisions to individual districts and schools (Hogue & Taylor, 2020). Studies have shown that when workloads are manageable, special

education teachers are more positive and more likely to continue in the profession than when workloads are unmanageable (Bettini et al., 2020; Walker et al., 2021). Special education teachers have reported having to spend many additional hours planning outside of scheduled work hours to manage the workload (Bettini et al., 2020; Walker et al., 2021). Although special education teachers often have paraprofessionals to assist with classroom duties and reduce some of the workload, some have found that having additional paraprofessionals adds to the workload because of the need to provide training and direction for them (Bettini et al., 2020; Hester et al., 2020).

Another factor that adds stress for special education teachers is legal requirements (Haydon et al., 2018; Hester et al., 2020; Love et al., 2020). In addition to high expectations that face general educators, there are even more additional laws and requirements that come into play when working in the field of special education (Bettini et al., 2020; Haydon et al., 2018; Hester et al., 2020). State testing is mandated for students with special needs, many of whom typically need special accommodations to complete state testing (Haydon et al., 2018). This causes stress for special education teachers, who often feel that their job security lies within their ability to produce high student test scores (Gonzalez et al., 2017; Haydon et al., 2018). Teachers participating in a study by Gonzalez et al. (2017) reported feeling high levels of stress relating to state testing, specifically focusing on feeling that there is not enough time to teach the required material for the test, frequent changes to curriculum requirements relating to high stakes testing, and testing of students with special needs.

Special education teachers are also required by law to manage IEPs (Hester et al., 2020; Love et al., 2020). This includes keeping up with legal requirements and deadlines, as well as monitoring progress towards student IEP goals (Hester et al., 2020; Love et al., 2020). The

amount of paperwork tied to keeping up with this takes teachers away from time they feel should be spend teaching their students (Hogue & Taylor, 2020). Teachers have described feeling stressed and burned out on trying to keep up with the mandated legal requirements (Haydon et al., 2018; Hester et al., 2020; Hogue & Taylor, 2020).

Managing student social and behavioral needs is another factor that causes stress for special education teachers (Sharp-Donahoo et al., 2018; Walker et al., 2021). Students with special needs are often not as socially accepted as their peers and can struggle with educational and social concerns that non-disabled peers do not experience (Hester et al., 2020; Nepi et al., 2015). Behan (2017) states that children with autism and other disabilities often have more difficulty than typically developing peers in areas such as communication, social interactions, and language. Special education teachers are expected to meet the needs of students with unique special needs in many different environments (Behan, 2017; Hester et al., 2020; Sharp-Donahoo et al., 2018). Teachers have listed having a lack of resources to meet the behavioral needs of their students in multiple settings as a source of stress (Hester et al., 2020).

Studies have shown lack of support from administration and other teachers as another area that is linked to stress levels in special education teachers (Hester et al., 2020; Hogue & Taylor, 2020; Pressley & Ha, 2022; Sharp-Donahoo et al., 2018). Stress from feeling unsupported by coworkers and school leaders has impacted teacher retention and turnover rates, leading some special educators to leave the profession (Hester et al., 2020; Hogue & Taylor, 2020; Love et al., 2020; Sharp-Donahoo et al., 2018). Special education teachers often feel that their jobs and their students are misunderstood by general education teachers and administration, leading them to feel unsupported (Stark & Koslouski, 2021). When special education teachers can work collaboratively with general education teachers and administration, they feel more

empowered and better able to meet the needs of their students (Stark & Koslouski, 2021; Walker et al., 2021).

High stress levels have been shown to cause negative impacts to the physical and mental health of special education teachers (Hester et al., 2020; Jovanovic et al., 2019; Stark & Koslouski, 2021). Work-related emotional exhaustion is commonly described by current special education teachers (Hester et al., 2020; Hogue & Taylor, 2020; Jovanovic et al., 2019). Some special educators have reported struggling with depression, anxiety, and chronic stress (Hester et al., 2020). Participants in a study by Hester et al. (2020) described feeling hopeless and worthless and when it came to their jobs as special education teachers. Special education teachers have also described feeling sadness, frustration, and disappointment regarding their teaching experiences (Hester et al., 2020; Stark & Koslouski, 2021). Studies have also found special education teachers to experience other negative health impacts after entering the teaching profession, such as high blood pressure, weight increases, heartburn, and difficulty sleeping (Hester et al., 2020).

Study results have shown a relationship between preparation and training for special education teachers and their stress levels (Karakaya & Tufan, 2018; Rakap et al., 2017). Karakaya and Tufan (2018) found that in the classrooms where the teacher had a formal education, the teacher had better classroom management skills than classrooms where the teacher had not graduated with formal education. This research suggests that teachers need more training and support in the classroom, especially when considering inclusion classrooms that general have higher need levels than general education classrooms (Karakaya & Tufan, 2018; Rakap et al., 2017). Other studies on teacher perceptions regarding inclusion have also shown that after appropriate training and professional development, teacher perceptions regarding inclusion significantly increase, and teachers report feeling significantly more comfortable with teaching

students with disabilities (Rakap et al., 2017). This study, sent out to candidates in a teacher education program in their third year of the bachelor's program, found that after completing the two classes, teachers were much more comfortable in their attitudes and comfort levels with working with students with disabilities, particularly those with more severe disabilities such as autism. More positive opinions regarding inclusion were found following the two courses and completion of in-person experiences with students with disabilities. The results showed positive changes in teacher attitudes, willingness to teach students with disabilities, and comfort level concerning teaching students with disabilities (Rakap et al., 2017).

**Teacher Burnout**

Prolonged periods of work-related stress and exhaustion can lead to burnout (Daniilidou et al., 2020; Kim & Buric, 2020; Smetackova, 2017). While the terms of stress and burnout are sometimes used synonymously, they are distinct but related experiences (Huk et al., 2019). Burnout can be described as physical, social, and cognitive exhaustion leading to withdrawal from work and people in general (Daniilidou et al., 2020; Ozturk et al., 2021). Burnout is typically characterized into the categories of emotional exhaustion, personal accomplishment, and depersonalization (Mohamed, 2015). Teachers who experience burnout endure negative implications on a personal level as well as a professional level (Huk et al., 2019; Ozturk et al., 2021).

Burnout impacts teachers on a personal level, including physical and mental health implications (Kim & Buric, 2020; Oberle & Schonert-Reichl, 2016; Ozturk et al., 2021). Some of the typical symptoms of burnout in teachers include poor mental health, low self-esteem, low self-confidence, and exhaustion (Kim & Buric, 2020; Ozturk et al., 2021). Burnout has also been associated with low feelings of personal accomplishment, where a person feels unsatisfied with

their potential to complete tasks (Daniilidou et al., 2020; Mohamed, 2015; Ozturk et al., 2021). Studies have also linked burnout to increased feelings of anxiety and depression in teachers (Buric et al., 2019; Ozturk et al., 2021).

Burnout can impact an educator's quality of teaching and classroom management decisions (Huk et al., 2019; Oberle & Schonert-Reichl, 2016). Teachers who are feeling the impact of burnout tend to have more frequent absences from work, which further facilitates the negative impacts on their classrooms and their schools (Huk et al., 2019; Kim & Buric, 2020). Burned out teachers are also more likely to have difficulty connecting with their students and be less effective with their instruction and classroom management decisions (Oberle & Schonert-Reichl, 2016). In addition, teachers who are experiencing burnout are more likely to use disciplinary measures than those who are not experiencing burnout (Osher et al., 2010).

Teachers experiencing burnout can negatively impact students both academically and emotionally (Huk et al., 2019; Kim & Buric, 2020; Oberle & Schonert-Reichl, 2016). Oberle and Schonert-Reichl (2016) conducted a study on teacher burnout levels and cortisol levels of elementary students in grades four through seven as a measure of their stress. The students participating came from 13 elementary schools and 17 classrooms in a large urban school district and included four male and 13 female teachers (Oberle & Schonert-Reichl, 2016). The cortisol levels in the students' saliva were measured at three points throughout the day with controls in place for external variables such as food and drink or physical activity directly prior to collection. After analysis, the results of the study showed that there was a significant relationship between the teachers' levels of burnout and the cortisol levels of students, showing that where teachers' levels of burnout were high, the stress levels of students in their classrooms tended to be higher as well (Oberle & Schonert-Reichl, 2016). The researchers discussed that there are

multiple possible explanations for the results in the study, including that the stress levels of teachers are projected to their students, or that students who have higher cortisol levels can lead to teachers who experience higher levels of stress and burnout.

Teacher burnout impacts the well-being of teachers, their students and classrooms, and school systems (Oberle & Schonert-Reichl, 2016). Burnout and stress and inter-related, and it is therefore important to study the implications of stress for teachers as it relates to burnout and the implication this has on students and classrooms. It is important to consider the implications of stress for teachers and classrooms and attempt to reduce teacher stress levels before burnout occurs.

**Coping with Stress**

With high levels of stress for special education teachers, it is important to consider ways to manage this stress to make improvements and reduce stress levels. Kim and Lim (2016) completed a study specifically focusing on stress levels of special education teachers regarding emotional stress factors. They found that these emotional stress factors often impacted the physical and mental health of the special education teachers. Additionally, Kerr and Brown (2016) found similar results the emotional factors played a significant role in the stress levels of special education teachers.

When considering stress levels of any individual, it is also important to research coping skills and stress management practices that are effective. Braun-Lewensohn (2016) found that culture has a significant impact on how educators manage stress, with personal beliefs and philosophies impacting stress management strategies as well as influencing the situations that individuals consider to be stressful. Kebbi (2018) found that while educators may experience different stressors, the stress management strategies for special education teachers were like that

of general education teachers. Cancio et al. (2018) found that tiredness from work and expectations was a contributing stress factor that needed to be managed.

One common strategy that has recently been used for educator stress reduction is the idea of mindfulness (Fabbro et al., 2020; Jennings et al., 2019). Fabbro et al. (2020) researched how mindfulness can be used to reduce teacher stress and burnout levels, finding that teachers who engaged in mindfulness training exercises reported lower levels of stress and feelings of burnout. This study showed that mindfulness is likely to be an effective stress reduction strategy for many teachers. Since the research shows there are strategies that may be effective in managing stress levels for teachers, it is important to study the impacts of teachers' increasing stress levels to determine the severity of the potentially negative impacts to the current education system. Once the scope of the impacts of teacher stress levels is fully determined, procedures can be established to reduce teacher stress levels and in turn positively impact other suffering areas in the educational system.

**Teacher Self-Efficacy**

When considering stress and its place in the field of education, it is important to also consider teacher feelings of self-efficacy. Self-efficacy can be defined as a feeling of a teacher's own general ability to provide the opportunities and instruction necessary to achieve desired or expected results (Isbell & Szabo, 2015). Okutan and Kahveci (2012) state that it is important to note that self-efficacy specifically relates to how a person feels about their own abilities, and their own beliefs regarding their abilities rather than a focus on the actual skills or talents the person may have. This means that a person's self-efficacy could be an accurate representation of their skills and talents, yet it could also be skewed based on other factors that can influence a person's view of themselves.

Teachers will a high sense of self-efficacy are typically aware of what their strengths are and what they are doing well at in their careers or in their classrooms (Karabatak & Alanoglu, 2019). Teachers with low self-efficacy are more likely to view their flaws and more negative feelings towards their own work and abilities. In general, this means that teachers with a high sense of self-efficacy have more positive views of their abilities, while teachers with low self-efficacy have a more negative view of their abilities. Bolton (2018) found that improving teacher feelings of self-efficacy was important not only in creating more positive feelings for the teachers, but in doing so also reducing the stress levels of teachers.

Feelings of self-efficacy for teachers does not only impact the teachers themselves. In fact, teachers' feelings of self-efficacy have been shown to impact the students, classrooms, schools, and districts that these teachers serve in (Anderson et al., 2019; Granziera & Perera, 2019). Recent studies have found that teachers' feelings of self-efficacy impacted their attitudes towards teaching, with low feelings of self-efficacy leading to negative attitudes towards teaching, and high feelings of self-efficacy leading to more positive attitudes towards teaching (Kirkic & Cetinkaya, 2020; Yildiz et al., 2020). This means that if teachers have low feelings of self-efficacy, they are more likely to have a negative attitude towards teaching in general, which could potentially impact their teaching styles and classroom interactions with students.

Self-efficacy impacts many aspects of a teacher's life, including attitude towards teaching and classroom scenarios but also attitude towards teaching as a profession and overall job satisfaction (Barni et al., 2019; Cevik, 2017). Cevik (2017) found that teachers with high levels of self-efficacy were significantly more likely to also have high levels of job satisfactions, where teachers with low feelings of self-efficacy were more likely to be dissatisfied with their current job. Bono and Judge (2003) found this to be true not only in educators, but also those who work

in other professions. When factoring in general self-esteem to the study, Cevik (2017) found similar results in comparison to those found regarding self-efficacy, with teachers who had high self-esteem having more positive feelings of job satisfaction, and those with low self-esteem having more negative feelings of job satisfaction.

**Stress and Self-Efficacy**

Feelings of stress and burnout are related to self-efficacy in the workplace (Daniilidou et al., 2020; Dos Santos, 2021). Stress for teachers can have impacts in physical, psychological, and behavioral areas for the teachers experiencing these symptoms (Daniilidou et al., 2020). These feelings of stress can also lead to teachers feeling less committed to their profession or job and impact their desire to resign from their position. Teachers who are stressed may be more likely to resign or leave the profession. In another study by Dos Santos (2021), it was found that teachers first entering the profession experienced decreasing levels of self-efficacy stemming from lack of needed materials, lack of appropriate teacher facilities, and feelings of isolation. As these teachers experienced decreasing levels of self-efficacy, they were found to be more likely to leave the teaching profession for other careers.

According to Bandura (1977), self-efficacy affects a person's actions and factors relating to actions. Karabatak and Alanoglu (2019) found that efficacy beliefs influenced a person's level of employment satisfactions and found that stress from job related factors influenced a person's individual level of stress. Daniilidou et al. (2020) found that teachers who had higher self-efficacy levels were better able to manage stressful situations when they did occur. Additionally, it was found that teachers with higher levels of self-efficacy found that expectations of the teaching career were less intimidating than teachers who had low self-efficacy.

In a study by Ishaq and Mahmood (2017), it was found that self-efficacy played a mediating role in the relationship between stress and burnout for university teachers participating in the study. The study consisted of 240 professors and assistant professors, with 53% male participants and 47% female participants. The results showed that participants who were experiencing high levels of stress also typically had higher levels of burnout. However, it was found that self-efficacy played a mediating role in that strong feelings of self-efficacy reduced some of the impacts of stress on burnout in participants who had high levels of stress but also high levels of self-efficacy (Ishaq & Mahmood, 2017).

Teachers have reported that approaches to state testing also impact their feelings of self-efficacy (Gonzalez et al., 2017). The teachers reported that stress and self-efficacy were also impacted by school leadership's approaches to high-stakes testing. If a school leader focused on low test scores and questioned the teaching practices or abilities of those with lower scores, lower feelings of self-efficacy were experienced. However, if a school administrator focused on teacher input and recognized the amount of effort put in by the teachers, the teachers experienced higher levels of self-efficacy. In addition, Gonzalez et al. (2017) found that the feelings of stress experienced by the teachers had a significant negative relationship to feelings of self-efficacy for the teachers participating in the study, whereas teacher stress levels increased, feelings of self-efficacy decreased. Given the previous research that points to the relationship between teacher stress and feelings of self-efficacy, in combination with the known negative impacts this can have on education systems, it is important to further research the relationship between stress and self-efficacy for special education teachers. If a relationship is defined, the scope of the negative impacts can begin to be addressed with the goal of positively benefiting students, teachers, and education systems.

**Teacher Experience Level**

Teachers' experience levels can impact their job satisfaction (Glock & Kleen, 2019; Topchyan & Woehler, 2021). Studies have shown that as teachers gain more experience, their job satisfaction often increases (Crawford, 2017; Toropova et al., 2021). However, at some point in their careers many teachers hit a peak point where their job satisfaction levels plateau and then begin to decrease again. Studies on teacher experience levels have shown that teachers at the beginning of their careers and at the end of their careers are more likely to have low job satisfaction and leave the profession (Toropova et al., 2021).

Teacher experience levels have also been shown to impact feelings of self-efficacy (Glock & Kleen, 2019). Studies have shown that those with more teaching experience tend to have higher levels of implicit and explicit self-efficacy than those with little teaching experience or teachers who are enrolled in preparation programs (Glock & Kleen, 2019; Gonzalez & Maxwell, 2018). This could be because future teachers who have not yet entered the profession may not yet have had the same opportunities to achieve mastery in teaching that those already in the profession have had (Glock & Kleen, 2019). Teachers who have experience teaching particular subjects have described feeling more confident in teaching that particular subject and felt that if they needed to switch to something they had not previously taught, they would be less confident in their abilities and decisions (Gonzalez & Maxwell, 2018).

A person's length of teaching service has been found to influence burnout related to teaching (Dias et al., 2021; Mohamed, 2015). Years of teaching experience has been positively correlated with burnout levels among educators. However, educators in the middle of their careers with 5-10 years of experience have reported the highest levels of burnout (Mohamed, 2015). This author theorized that this could be due to more job expectations being placed on

teachers in this group with the additional expectation that they serve as guides to new teachers entering the profession.

**Teacher Shortages**

Teacher shortages have become a nationwide concern in the United States in recent years (Wiggan et al., 2021). Carver-Thomas and Darling-Hammond (2017) found that the United States had a shortage of approximately 110,000 teachers in the 2017-2018 school year, where there had previously been no shortages just four years prior. Special education, English as a Second Language (ESL) and English to Speakers of Other Languages (ESOL) as well as in science, technology, engineering, and mathematics (STEM) areas have experienced some of the most profound teacher shortages (Wiggan et al., 2021). In California, teacher shortages have been increasing for several years in special education, math, science, and bilingual education (Carver-Thomas et al., 2020). In addition, more students with limited English proficiency are enrolling in schools, but the number of teachers in this area is decreasing (Wiggan et al., 2021). These shortages impact not only the students and teachers, but the entire educational system (Carver-Thomas et al., 2020; Garcia & Weiss, 2019).

While impacting high need subject areas, teacher shortages also impact certain geographical areas more than others (Goldhaber et al., 2021). Teacher shortages can also impact certain types of schools more than others. According to McVey and Trinidad (2019), certain schools or districts are more likely to have difficulties filling needed positions. Goldhaber et al. (2021) found that districts with fewer student teacher placements were likely to have more open teaching positions that are unfilled than districts with higher numbers of student teachers. Krieg et al. (2016) found that over 75% of first job placements are located within 50 miles of the teacher's student teaching placement and are most likely to be within the same district as their

student teaching placement. It is also more likely that future teachers will choose to take a position within the district they completed their student teaching in over a position in their hometown (Krieg et al., 2016).

In addition to comparing a teacher's pre-service teaching location and the location of their future teaching position, certain teachers are more likely to work in a district in a specific geographical area such as an urban area or a more rural area (Oyen & Schweinle, 2020). These authors researched the interests of student teachers towards teaching in a rural area after their student teaching and found that after the first semester 62% of participants were open to teaching in a rural setting, but after the second semester this declined to 38%. Of these participants, it was also found that undergraduate students were twice as likely as graduate students to be interested in teaching in a rural area, and that students of color were less likely to be willing to teach in a rural area (Oyen & Schweinle, 2020). Additionally, future teachers that had attended a rural school in high school were 5.5 times more likely to consider teaching in a rural area than those who had attended high school in an urban setting.

Another area that has implications regarding teacher shortages is the student body composition of the school or district (Goldhaber et al., 2021). Districts with high percentages of students in poverty, students of color, and other groups often disadvantaged groups frequently have more difficulties in recruiting and retaining staff (McVey & Trinidad, 2019). According to Carver-Thomas et al. (2020), schools with the highest needs and highest poverty rates are often the most challenging to fill staffing positions. The teacher shortages in these schools that serve a high portion of low-income families cause positions to be filled with substitutes or with candidates who have not yet completed their teacher preparation programs (Carver-Thomas et al., 2020). In California, the number of requests for emergency teaching permits has grown

continuously from year to year, with the 2019-2020 school year seeing seven times the number of requests that were submitted in the 2012-2013 school year. This is concerning, as it means that there are more teachers in the classroom with less experience than before.

One of the known areas that has contributed to the growing teacher shortages is the teacher pay gap, where teachers often feel they are underpaid and salary increases are limited (Wiggan et al., 2021). According to the National Education Association (2021), the national average teacher salary only increased by 0.9% over the prior 10 years when adjusted for inflation. In 2018, it was reported that teachers earned 21.4% lower salaries than those in other comparable professions when comparing weekly wages (Garcia & Weiss, 2019). Many teachers choose to take on second jobs to boost their teaching incomes or live with roommates to reduce costs. In the 2015-2016 school year it was reported that 59% of teachers received income from positions outside of their base salary, with some teachers holding additional jobs within the school system such as coaching or teaching evening classes, and others holding additional positions outside the school system such as driving for ride-share companies (Garcia & Weiss, 2019).

Low teacher compensation has led to less students majoring in education in college, with numbers of education majors decreasing nationwide in the United States (Rich et al., 2020; Wiggan et al., 2021). In fact, according to Berry and Shields (2017), enrollment in teacher education college programs decreased by approximately 35% between the years of 2009 and 2016. In attempts to mitigate impacts of teacher shortages, many districts have resorted to hiring teacher candidates (TCs), or future teachers who are currently completing their student teaching, as the Teachers of Record (TOR) for the classes they are student teaching in (Rich et al., 2020). This is done through partnerships with the student teacher's university and the school system,

where the university is provided with placements for their student teachers, and the school system can fill needed teacher positions with the teacher candidates (Rich et al., 2020). These authors found that this method of filling open teacher positions was most effective when the TCs were prepared well by their universities, already had specific methods of thinking, and had strong mentorship and support from both the university and the school system.

## Summary

The theories of Abraham Maslow and Albert Bandura are foundational in studying teacher stress levels, feelings of self-efficacy, and teacher experience levels. Maslow's hierarchy of needs explains the order of needs a person has that must be met before they can focus on other areas of need, such as education or teaching. Bandura's theory of self-efficacy focuses on where feelings of self-efficacy begin and the factors that impact feelings of self-efficacy (Bandura, 1977). Research has shown that teacher experience levels may also be a factor in teacher stress levels and feelings of self-efficacy (Glock & Kleen, 2019). The theories of Abraham Maslow and Albert Bandura together work towards explaining educator stress and the relationship it has with feelings of self-efficacy and teaching experience.

Current research suggests that the field of education often comes with high levels of stress (Harmsen et al., 2019). Studies have shown that teachers experience stress relating to emotional stress factors and teacher evaluation systems (Anderson et al., 2019; Atasoy, 2020). Additional common sources of stress stem from stress relating to special education and stressors from the impacts of the COVID-19 pandemic (Bettini et al., 2020; Loewus, 2021). Unfortunately, teacher burnout can often occur when teachers are too overwhelmed or stressed, leading to problems with teacher shortages and positions to be filled with those who are inexperienced or not fully trained (Wiggan et al., 2021).

The present study attempts to determine if a predictive relationship exists between the combination of teacher stress levels and years of experience and teacher feelings of self-efficacy in special education teachers. Both feelings of self-efficacy and teacher stress levels have a great impact on the teaching profession and education system as a whole. However, teacher experience levels may play a part in the relationship between feelings of self-efficacy and teacher stress. While stress levels and feelings of self-efficacy have been linked in some studies (Daniilidou et al., 2020; Dos Santos, 2021), it is important to determine if a predictive relationship exists between stress levels, teacher experience, and feelings of self-efficacy.

Herman et al. (2018) found that low feelings of self-efficacy in teachers led to burnout and consequently teachers leaving the profession. With stress levels of educators on the rise and increasing teacher shortages, it is important to conduct research on the relationships between the factors that may be contributing to this. Current research is limited in scope, often focusing on the stress levels of educators as it relates to burnout. There is a gap in the research concerning if predictive relationships occur between stress levels and feelings of self-efficacy and whether teacher experience is a significant factor.

# CHAPTER THREE: METHODS

## Overview

The purpose of this quantitative explanatory correlational study is to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers in central Tennessee. This chapter will review the research methodology used in this correlational study and includes a summary and discussion of the research design as well as the design's rationale. The research question and null hypothesis are presented, as well as a description of the participants and setting. The instruments used to conduct the study are described along with a summary of the procedures for the study. This chapter concludes with an explanation of the data analysis conducted.

## Design

The study used a quantitative, explanatory correlational design, with data gathered through surveys. In this type of research, at least two variables should be identified, and in many cases more than two variables will be identified (Creswell & Guetterman, 2019). This design looks at how the variables covary, or how a score for one variable can be predicted by knowing information or scores about the other variable or variables. Other factors that identify a study as being an explanatory correlational design include that participants are placed in one group, and at least two scores are associated for each participant, with one score for each variable in the study. Finally, a correlation statistical test including strength and direction should be reported with explanations or interpretations of the results of the statistical test (Creswell & Guetterman, 2019).

A correlational design is appropriate when studying the relationship between variables and the degree of the relationship, as opposed to influencing the criterion variable (Creswell &

Guetterman, 2019). The intended research studied was the relationship between stress scores, teacher years of experience, and self-efficacy for special education teachers in Tennessee. The study did not aim to influence the criterion variable, but rather evaluate how variations in the criterion variable can be explained by the predictor variables. The correlational design was appropriate for this study because the study intended to look at the relationship or association between the variables but does not intend to manipulate the variables.

This study utilized two predictor variables, and one criterion variable. The predictor variables are teacher stress scores and years of teaching experience, and the criterion variable is feelings of self-efficacy. Teacher stress scores were obtained utilizing the scoring from the TSI for the subscale areas of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. Years of teaching experience is defined as the number of years a teacher has worked as a teacher. Feelings of self-efficacy are defined as teachers' beliefs in their abilities to make a difference in student learning, including reaching challenging students, in the areas of instructional strategies, student engagement, and classroom management (Tschannen-Moran, 2022).

## Research Questions

**RQ1**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of time management for special education teachers in Central Tennessee?

**RQ2**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of work-related stressors for special education teachers in Central Tennessee?

**RQ3:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional distress for special education teachers in Central Tennessee?

**RQ4:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of discipline and motivation for special education teachers in Central Tennessee?

**RQ5:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional investment for special education teachers in Central Tennessee?

## Hypotheses

The null hypotheses for this study are:

**$H_0$1:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of time management as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$2:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of work-related stressors as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$3:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of professional distress as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$4:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of discipline and motivation as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$5:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of professional investment as measured by the TSI for special education teachers in Central Tennessee.

## Participants and Setting

This section includes a description of the target population of special education teachers in central Tennessee. The participants, sampling procedure, and sample size are addressed. This section concludes with a discussion of the setting of the study.

### Population

The target population of this study was licensed special education teachers at a large urban school district in central Tennessee. The district includes a total of 157 schools, including 73 elementary schools, 33 middle schools, 25 high schools, 18 charter schools, and eight other specialty schools. The district serves approximately 86,000 students in grades pre-K through 12, and most of the students in the district are qualified as economically disadvantaged. The district employs approximately 5800 teachers and 4200 support staff members. Forty percent of teachers hold a bachelor's degree, 36% hold a master's degree, and 24% hold higher than a master's degree. Of the employees, 63.7% self-identify as non-Hispanic white, 33.4% as African American, 1.9% as Hispanic/Latino, 0.8% as Asian/Pacific Islander, and 0.2% as other. The average length of teacher experience is 13 years.

**Participants**

The sampling method used in this study was a convenience sample, or one that is taken from a group that is easily accessible or convenient to the researcher (Howell, 2011). The participants of this study were drawn from a convenience sample of elementary, middle, and high school special education teachers located in a large public city school district in Central Tennessee during the 2022-2023 school year. The sample consisted of special education teachers from multiple schools within the district and included special education teachers from numerous different classroom settings (inclusion, resource, self-contained, etc.) with a variety of different experience levels. Of a workforce of approximate 560 classroom special education teachers in the district, all were invited to participate in the study. Special education teachers from all schools in the district were invited using the districts' email group for special education teachers. Teachers were invited to participate through completing a web-based demographic survey as well as the TSI and TSES surveys. The researcher offered a raffle entry incentive for one of four $25 gift cards for participants who responded to the survey. The researcher sent a follow-up request for participation to participants two weeks following the initial invitation. The sample size was 74 participants, which exceeds the required minimum of 66 for a correlation analysis when assuming medium effect size with statistical power of .7 and alpha level $\alpha = .05$ (Gall et al., 2007, p. 145). Names for raffle winners were drawn using an online raffle generator after the close of the survey, and winners were notified by email.

The total number of participants surveyed was 74, with 13 males and 61 females. The study included 33 inclusion/resource teachers, 15 self-contained special education teachers, five itinerant teachers, 14 special day school teachers, and seven special education teachers in other classroom environments. The sample consisted of 18 teachers with five or less years of

experience, 21 teachers with six to 10 years of experience, and 35 teachers with more than 10 years of experience.

### Setting

The setting of this study was a large urban public school district in Central Tennessee during the 2022-2023 school year. Participants taught in a variety of different elementary, middle, and high school special education classroom settings. The study was conducted through an online survey format and all correspondence with participants was conducted through email. Sampling occurred during the first semester of 2022-2023 school year.

## Instrumentation

This study utilized the TSI and the TSES to gather participant responses (Fimian, 1988; Tschannen-Moran & Hoy, 2001). Fimian's (1988) TSI was used to measure the predictor variable of self-reported stress levels of teachers participating in the study (see Appendix A). The predictor variable of teacher years of experience was collected through demographic questionnaire answers (see Appendix B). The TSES, developed by Tschannen-Moran and Hoy (2001), is also referred to as the Ohio State Teacher Efficacy Scale (OSTES) and was used to assess the criterion variable of teachers' self-efficacy (see Appendix C). The TSI and the TSES are both commonly used instruments in educational studies (Cook & Babyak, 2019; Eason, 2020; Fabbro et al., 2020; Wegley, 2018).

### Teacher Stress Inventory (TSI)

The first instrument used in this study was the TSI. The purpose of the TSI is to measure teacher stress (Fimian, 1988). The inventory is best utilized for research on teacher stress, for teachers wishing to self-monitor stress, or for districts attempting to measure system-wide teacher stress. This inventory was used to measure stress levels of teachers participating in the

study. The TSI was developed for use initially with general education and special education teachers who taught at public schools in the United States (Fimian, 1988). The instrument went through several changes as it was being developed, with the most recent version being used in this study. The TSI was selected for use in this study because the development aligns with the goal of measuring stress levels for special education teachers. The TSI has been used in multiple educational studies as a measure for teacher stress levels, making it an acceptable instrument for measuring teacher stress levels in the proposed study (Cook & Babyak, 2019; Eason, 2020; Fabbro et al., 2020; Wegley, 2018).

The TSI has been demonstrated to be both reliable and valid (Fimian, 1988). Construct validity was established through conducting a factor analysis. The TSI was created with the assistance of field experts, who reviewed survey items and determined their level of relation to the concept intended to measure, ensuring content validity. A high degree of agreement was found for content validity on each subscale. Internal consistency reliability was calculated using Cronbach's alpha, where the whole scale alpha reliability was 0.93 and the subcategory alpha scores falling between 0.75 and 0.88 (Fimian, 1988). The alpha for the time management subscale was 0.83, the work-related stressors subscale was 0.80, professional distress was 0.82, discipline and motivation was 0.86, and professional investment was 0.75. Test-retest reliability was also calculated, with a sample of special education teachers taking the assessment twice, with a range of two hours to two weeks occurring between assessment administrations. Test-retest reliabilities ranged from 0.67 for a one-week interval between tests to 0.99 for a two-week interval between tests for the whole scale assessment (Fimian, 1988).

The final version of the TSI, which was used in this study, consists of 49 questions measuring teacher stress levels. These questions are segmented into two groups with a total of 10

subgroups (Fimian, 1988). Each subgroup contains between three and eight question items. The first group consists of factors that cause stress, including time management, work-related stress, professional distress, discipline and motivation, and professional investment. The second group consists of stress manifestations, including emotional, fatigue, cardiovascular, gastronomic, and behavioral subcategories (Fimian, 1988). The instrument uses a 5-point Likert scale ranging from no strength to major strength, with response options of *1 = no strength, 2 = mild strength, 3 = medium strength, 4 = great strength, and 5 = major strength* (Fimian, 1988).

Survey responses were scored according to the instructions (Fimian, 1988). Each subscale was scored to produce a mean score for each subscale. A total stress score was also calculated by adding the 10 subscale scores and dividing by 10 to achieve a total stress score as directed by Fimian (1988). Total scores range from a low of 1, where the respondent has no stress, to a maximum of 5, where the respondent has extreme sources of stress. The researcher administered the TSI to study participants electronically, by placing the survey questions into Survey Monkey and sending to participants electronically. The estimated time to complete the survey was approximately 10 minutes. Survey responses were scored by the researcher. See Appendix A for permission to use this instrument.

**Teachers' Sense of Efficacy Scale (TSES)**

The second instrument used in this study was the TSES, also referred to as the OSTES. The purpose of the TSES is to measure teachers' feelings of self-efficacy regarding their teaching (Tschannen-Moran & Hoy, 2001). The TSES was chosen for use in this study because the study intends to research feelings of self-efficacy in special education teachers, and this aligns with the intended purpose of this instrument. This inventory was used to measure the self-reported efficacy feelings of special education teachers participating in the study. The TSES was

initially developed because there was a need for more effective instruments for measuring teacher self-efficacy at the time. The TSES was developed at Ohio State University with the goal of measuring teacher self-efficacy in the areas of student engagement, classroom management, and instructional strategies (Tschannen-Moran & Hoy, 2001). The TSES has been used in various educational studies as a measure for teachers' feelings of self-efficacy (Blevins, 2021; Dupuis et al., 2020; Sinkonis, 2018; Tschannen-Moran & Hoy, 2007).

The TSES has been demonstrated to be both reliable and valid through three studies (Tschannen-Moran & Hoy, 2001). The first writing of the instrument consisted of 52 test items and went through testing with 224 participants (Tschannen-Moran & Hoy, 2001). This study resulted in the questionnaire being reduced to 32 question items. In the second study, factor analysis was conducted, ensuring construct validity. In this study, instrument items were analyzed using two-factor and three-factor analysis and resulted in the instrument items being further reduced to 18 items (Tschannen-Moran & Hoy, 2001). In the third study, additional questionnaire items were added to further examine the category of classroom management. This study resulted in the questionnaire being organized into three subscales, including the areas of self-efficacy in student engagement, classroom management, and instruction. Finally, internal consistency reliability was calculated using Cronbach's alpha, where the whole scale alpha reliability was 0.90 with subcategories alpha scores ranging between 0.81 to 0.86 (Tschannen-Moran & Hoy, 2001).

The short form of the TSES consists of 12 questions with a nine-point Likert scale format with response options being *nothing = 1, very little = 3, some influence =5, quite a bit = 7* and *a great deal = 9* (Tschannen-Moran & Hoy, 2001). The scoring for the short form ranges from a low of 12 points to a high of 108 points, where a low score demonstrates low feelings of self-

efficacy and a high score demonstrates high feelings of self-efficacy. The questions are categorized into three groups for measuring efficacy in the areas of student engagement, instructional strategies, and classroom management (Tschannen-Moran & Hoy, 2001). The scoring includes a score for each of these three groups as well as an overall composite score that represents overall teacher self-efficacy. Survey responses were scored according to the instructions on the survey and categorized into the groups of efficacy in student engagement, instructional strategies, and classroom management.

The researcher administered the TSES to study participants electronically, by uploading the survey questions into Survey Monkey and sending to participants through email. The estimated time to complete the survey was approximately 10 minutes. Survey responses were scored by the researcher. See Appendix C for permission to use this instrument.

## Procedures

To begin the study, Institutional Review Board (IRB) approval was obtained. See Appendix D for IRB approval. Next, permission to conduct the study was requested from the school district administration (see Appendix E). Once permission was obtained from administration, potential special education teacher participants were invited to participate in the study through email. Survey links and consent information were sent to potential participants. The consent form notified participants that participation in the study was optional and little to no risk to participants was present given the nature of the research. See Appendix F for the participant consent form.

Both the TSI and TSES surveys were sent and completed electronically. Survey links were created using Survey Monkey, and included consent forms, IRB permissions, demographic questions, the TSI questions, and the TSES questions. Participants were able to access the

study's unique link from the initial email that was sent to participants and were asked to return the surveys within six weeks. A follow-up reminder was sent two weeks after the initial request. All surveys were completed anonymously to protect participant privacy. Survey settings were set so that only one submission was allowed per each participant to ensure there were no double responses.

If participants consented, they proceeded to complete demographic information including teaching assignment, gender, classroom type, age, years of teaching experience, and education level. The survey ended if teachers identify themselves as teaching a subject area other than special education. If participants met the necessary criteria, the study continued with the TSI questions. After completion of these questions, participants were presented with the TSES questions. Upon completion of the survey, participants received a confirmation thanking them for their time spent and willingness to participate.

At the completion of the one-month data collection period, the survey link was closed and procedures for data analysis started. Data were only available to the researcher and was stored in password protected spreadsheets and software on a laptop that was only accessible to the researcher. A backup set of data was kept on an external hard drive that was also only available to the researcher. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. All data will be kept for a minimum of three years and will be password protected for the duration of the three years. After this time, all data will be deleted.

## Data Analysis

A multiple linear regression was completed to analyze the data for each hypothesis. A multiple linear regression was an appropriate means of data analysis for this study because it compares the predictive relationship between one criterion variable and two or more predictor

variables, given that the predictor variables have not been manipulated, the criterion variable is continuous, the data comes from one group, and each participant provides data for each variable (Gall et al., 2007; Warner, 2013). Data from the instruments were visually inspected for missing data points, and then statistical analysis was conducted. The statistical analysis was used to determine if there is a predictive relationship between the criterion variable, teacher feelings of self-efficacy, and the linear combination of predictor variables, teacher years of experience and stress scores for special education teachers in central Tennessee. A similar multiple linear regression analysis was used by Atabek (2020) to determine how predictors were related to the criterion variable in a study regarding self-efficacy, emotional states, and attitudes for teachers.

Additionally, descriptive statistics were calculated to identify and organize the stress scores and self-efficacy scores. Descriptive statistics were calculated including ranges, means, and standard deviations. According to Warner (2013) descriptive statistics should be used when summarizing information about a sample, making this analysis appropriate for this portion of the research.

Data were organized and examined by the researcher. The researcher screened the data for any inaccurate or missing data and removed any incomplete data sets. Data were uploaded into SPSS for scoring. For the TSI, the mean scores were calculated both for the overall assessment and for the subgroups to determine the overall score (Fimian, 1988). Ranges, means, and standard deviations were calculated for the total teacher stress scores. For the TSES, ranges, means, and standard deviations were calculated (Tschannen-Moran & Hoy, 2001).

The multiple linear regression analysis required three assumptions to be met (Warner, 2013). The assumption of linearity was completed through a scatterplot between each pair of predictor variables (x, x) and each pair of predictor and criterion variables (x, y). Any extreme

outliers found were evaluated to determine if they should be removed from the data set. Outliers refer to any data point that is markedly different from the rest of the data for a sample or group (Gall et al., 2007). The second assumption of multivariate normal distribution was tested using scatterplots between each pair of predictor variables (x, x) and each pair of predictor and criterion variables (x, y). The final assumption of multicollinearity was examined using the variance inflation factor examination (VIF). A problem in collinearity would show that the predictor variables are difficult to assess (Warner, 2013).

Once the statistical analysis has been conducted, the researcher must calculate if the statistic is significant (Creswell & Guetterman, 2019). A significance level of $p < 0.05$ was used to determine if the null hypothesis should be rejected or accepted (Gall et al., 2007). The test was run at the 95% confidence level and significance was reported using an *F*-stat (Gall et al., 2007). Effect size was calculated and reported through Pearson's $r^2$ in this study, as indicated by Creswell and Guetterman (2019). The researcher then rejects or fails to reject the null hypothesis.

# CHAPTER FOUR: FINDINGS

## Overview

The purpose of this quantitative, explanatory correlational study was to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers. The predictor variables were teacher stress scores and years of teaching experience. The criterion variable was feelings of self-efficacy. A total of five multiple linear regressions were used to test the five hypotheses. The results section includes the research question, null hypotheses, data screening, descriptive statistics, assumptions testing, and results.

## Research Questions

**RQ1**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of time management for special education teachers in Central Tennessee?

**RQ2**: How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of work-related stressors for special education teachers in Central Tennessee?

**RQ3:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional distress for special education teachers in Central Tennessee?

**RQ4:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of discipline and motivation for special education teachers in Central Tennessee?

**RQ5:** How accurately can self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional investment for special education teachers in Central Tennessee?

## Null Hypotheses

**$H_0$1:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of time management as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$2:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of work-related stressors as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$3:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of professional distress as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$4:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress score in area of discipline and motivation as measured by the TSI for special education teachers in Central Tennessee.

**$H_0$5:** There is no significant predictive relationship between self-efficacy scores as measured by the TSES and the linear combination of years of teaching experience and the stress

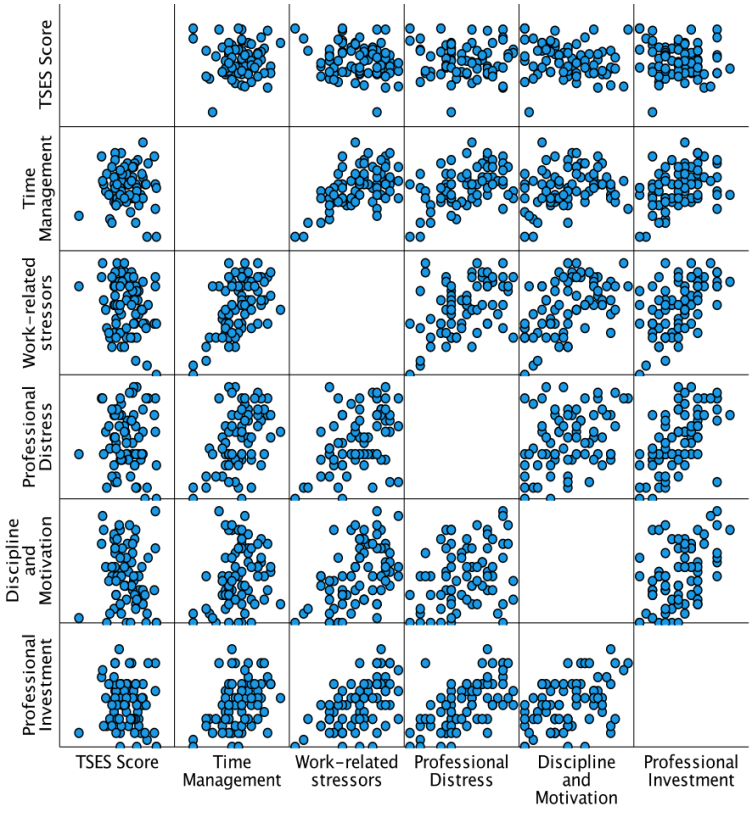
score in area of professional investment as measured by the TSI for special education teachers in Central Tennessee.

## Data Screening

The researcher sorted the data and screened for inconsistencies on each variable. No data errors or inconsistencies were found. A matrix scatter plot was used to detect bivariate outliers between the predictor variables and the criterion variable. No bivariate outliers were identified. See Figure 1 for the matrix scatter plot.

**Figure 1**

*Matrix Scatter Plot*




## Descriptive Statistics

Descriptive statistics were calculated for the continuous variables of the TSES scores and

TSI subscores of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. Ranges, minimum and maximum scores, means, and standard deviations were calculated. Data is displayed in Table 1.

The TSES questions were categorized in three groups for the scoring of the subscales of efficacy in student engagement, instructional strategies, and classroom management (Tschannen-Moran & Hoy, 2001). Descriptive statistics were calculated for each subgroup as well as the overall TSES score. The scoring for the short form ranges from a low of 12 points to a high of 108 points, where a low score demonstrates low feelings of self-efficacy and a high score demonstrates high feelings of self-efficacy. Participant responses in this study had a minimum score of 33 and a maximum score of 108, with a mean score of 79.5 and standard deviation of 14.406. Each subgroup has a low possible score of 4 and a high possible score of 36. For the student engagement subgroup, this study had a minimum score of 9 and a maximum score of 36, with a mean score of 25.34 and standard deviation of 5.594. For the instructional strategies subgroup, this study had a minimum score of 15 and a maximum score of 36, with a mean score of 27.91 and standard deviation of 4.944. For the classroom management subgroup, this study had a minimum score of 9 and a maximum score of 36, with a mean score of 26.26 and standard deviation of 5.442.

The 29 TSI questions that were used in this survey included all questions in the subcategories of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. Scores were calculated for each of the subscale categories. Ranges, minimum and maximum scores, means, and standard deviations were calculated for each subscale.

**Table 1**

*Descriptive Statistics*

| | *n* | Range | Min. | Max. | *M* | *SD* |
|---|---|---|---|---|---|---|
| TSES Score | 74 | 75 | 33 | 108 | 79.50 | 14.406 |
| Student Engagement | 74 | 27 | 9 | 36 | 25.34 | 5.594 |
| Instructional Strategies | 74 | 21 | 15 | 36 | 27.91 | 4.944 |
| Classroom Management | 74 | 27 | 9 | 36 | 26.26 | 5.442 |
| Time Management | 74 | 3.38 | 1.50 | 4.88 | 3.27 | .683 |
| Work-related stressors | 74 | 4.00 | 1.00 | 5.00 | 3.44 | .935 |
| Professional Distress | 74 | 4.0 | 1.0 | 5.0 | 3.13 | 1.043 |
| Discipline and Motivation | 74 | 4.00 | 1.00 | 5.00 | 2.71 | 1.071 |
| Professional Investment | 74 | 3.50 | 1.00 | 4.50 | 2.52 | .842 |
| Valid N (listwise) | 74 | | | | | |

A frequency analysis was conducted for the categorical predictor variable of years of experience. Results of the frequency analysis are shown in Table 2.

**Table 2**

*Frequency Analysis – Years of Experience*

| | | Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| Valid | 0-5 | 18 | 24.3 | 24.3 |
| | 6-10 | 21 | 28.4 | 52.7 |
| | more than 10 | 35 | 47.3 | 100.0 |
| | Total | 74 | 100.0 | |

## Results

Five multiple regressions were conducted to see if relationships existed between the criterion variable, TSES scores, and each set of predictor variables. Each set of predictor variables include years of experience in combination with one subscale score from the TSI. The TSI subscales included were time management, work-related stressors, professional distress,

discipline and motivation, and professional investment. The categorical variable of years of experience was coded as 0-5 years equal to 1, 6-10 years equal to 2, and more than 10 years equal to 3 as per Warner (2021).

**Assumption Testing**

**Assumption of Linearity**

The multiple regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 1 for the matrix scatter plot.

**Assumption of Multivariate Normal Distribution**

The second assumption of multivariate normal distribution was tested using scatterplots between each pair of continuous predictor variables (x, x) and each pair of continuous predictor and criterion variables (x, y) for each of the five research questions. The assumption of multivariate normal distribution was met. See Figure 1 for the scatter plot matrix.

**Assumption of Multicollinearity**

The final assumption of non-multicollinearity among predictor variables was examined using the variance inflation factor examination (VIF). A problem in collinearity would show that the predictor variables are difficult to assess (Warner, 2013). If the VIF is greater than 10, multicollinearity exists, and this assumption is violated. VIF values between 1 and 5 are allowable. All VIF values were between 1 and 5 as shown in tables 3 through 7. The assumption was met.

**Table 3**

*Collinearity Statistics: Time Management*

| Model | Collinearity Statistics |
|---|---|

| | | Tolerance | VIF |
|---|---|---|---|
| 1 | Time Management | .910 | 1.099 |
| | Years of Experience | .910 | 1.099 |

a. Dependent Variable: Teacher Self-Efficacy

**Table 4**

*Collinearity Statistics: Work-Related Stressors*

| | | Collinearity Statistics | |
|---|---|---|---|
| Model | | Tolerance | VIF |
| 1 | Work-Related Stressors | .967 | 1.034 |
| | Years of Experience | .967 | 1.034 |

a. Dependent Variable: Teacher Self-Efficacy

**Table 5**

*Collinearity Statistics: Professional Distress*

| | | Collinearity Statistics | |
|---|---|---|---|
| Model | | Tolerance | VIF |
| 1 | Professional Distress | .998 | 1.002 |
| | Years of Experience | .998 | 1.002 |

a. Dependent Variable: Teacher Self-Efficacy

**Table 6**

*Collinearity Statistics: Discipline and Motivation*

| | Collinearity Statistics |
|---|---|
| Model | |

| | | Tolerance | VIF |
|---|---|---|---|
| 1 | Discipline and Motivation | .995 | 1.005 |
| | Years of Experience | .995 | 1.005 |

a. Dependent Variable: Teacher Self-Efficacy

**Table 7**

*Collinearity Statistics: Professional Investment*

| | | Collinearity Statistics | |
|---|---|---|---|
| Model | | Tolerance | VIF |
| 1 | Professional Investment | 1.000 | 1.000 |
| | Years of Experience | 1.000 | 1.000 |

a. Dependent Variable: Teacher Self-Efficacy

## Results

### $H_0$1: Time Management

A multiple regression analysis was conducted to determine how accurately self-efficacy scores can be predicted from a linear combination of years of teaching experience and the stress score in area of time management. The predictor variables were the years of teaching experience and the stress score in area of time management, and the criterion variable was the self-efficacy scores. The linear combination of years of experience and the time management stress score was not significantly related to the self-efficacy scores, $F(2,71) = 0.01$, $p = .987$. The researcher failed to reject the null hypothesis. Table 8 provides the regression model results.

**Table 8**

*Regression Model Results*

| Model | | *SS* | *df* | *MS* | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 5.497 | 2 | 2.748 | .013 | .987[b] |
| | Residual | 15145.003 | 71 | 213.310 | | |
| | Total | 15150.500 | 73 | | | |

a. Dependent Variable: Teacher Self-Efficacy
b. Predictors: (Constant), Years of Experience, Time Management

The model summary showed $R = .019$, indicative of an effect size between no effect and small effect, as per Warner (2021). The model summary is shown in Table 9.

**Table 9**

*Model Summary*

| Model | *R* | $R^2$ | Adjusted $R^2$ | *SEM* |
|---|---|---|---|---|
| 1 | .019[a] | .000 | -.028 | 14.605 |

a. Predictors: (Constant), Years of Experience, Time Management

**$H_0$2: Work-Related Stressors**

A multiple regression analysis was conducted to determine how accurately self-efficacy scores can be predicted from a linear combination of years of teaching experience and the stress score in area of work-related stressors. The predictor variables were the years of teaching experience and the stress score in area of work-related stressors, and the criterion variable was the self-efficacy scores. The linear combination of years of experience and the time management stress score was not significantly related to the self-efficacy scores, $F(2,71) = 1.67$, $p = .196$. The researcher failed to reject the null hypothesis. Table 10 provides the regression model results.

**Table 10**

*Regression Model Results*

| Model | | *SS* | *df* | *MS* | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 680.283 | 2 | 340.142 | 1.669 | .196[b] |

| | | | | |
|---|---|---|---|---|
| | Residual | 14470.217 | 71 | 203.806 |
| | Total | 15150.500 | 73 | |

a. Dependent Variable: Teacher Self-Efficacy
b. Predictors: (Constant), Years of Experience, Work-related stressors

The model summary showed $R$ = .212, indicative of a medium effect size, as per Warner (2021). The model summary is shown in Table 11.

**Table 11**

*Model Summary*

| Model | *R* | $R^2$ | Adjusted $R^2$ | *SEM* |
|---|---|---|---|---|
| 1 | .212[a] | .045 | .018 | 14.276 |

a. Predictors: (Constant), Years of Experience, Work-related stressors

**$H_0$3: Professional Distress**

A multiple regression analysis was conducted to determine how accurately self-efficacy scores can be predicted from a linear combination of years of teaching experience and the stress score in area of professional distress. The predictor variables were the years of teaching experience and the stress score in area of professional distress and the criterion variable was the self-efficacy scores. The linear combination of years of experience and the professional distress stress score was not significantly related to the self-efficacy scores, $F(2,71) = .09$, $p = .916$. The researcher failed to reject the null hypothesis. Table 12 provides the regression model results.

**Table 12**

*Regression Model Results*

| Model | | *SS* | *df* | *MS* | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 37.566 | 2 | 18.783 | .088 | .916[b] |
| | Residual | 15112.934 | 71 | 212.858 | | |
| | Total | 15150.500 | 73 | | | |

a. Dependent Variable: Teacher Self-Efficacy
b. Predictors: (Constant), Professional Distress, Years of Experience

The model summary showed $R = .050$, indicative of an effect size between no effect and small effect, as per Warner (2021). The model summary is shown in Table 13.

**Table 13**

*Model Summary*

| Model | *R* | $R^2$ | Adjusted $R^2$ | *SEM* |
|---|---|---|---|---|
| 1 | .050[a] | .002 | -.026 | 14.590 |

a. Predictors: (Constant), Professional Distress, Years of Experience

**$H_0$4: Discipline and Motivation**

A multiple regression analysis was conducted to determine how accurately self-efficacy scores can be predicted from a linear combination of years of teaching experience and the stress score in area of discipline and motivation. The predictor variables were the years of teaching experience and the stress score in area of discipline and motivation and the criterion variable was the self-efficacy scores. The linear combination of years of experience and the discipline and motivation stress score was not significantly related to the self-efficacy scores, $F(2,71) = 1.32$, $p = .274$. The researcher failed to reject the null hypothesis. Table 14 provides the regression model results.

**Table 14**

*Regression Model Results*

| Model | | *SS* | *df* | *MS* | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 541.922 | 2 | 270.961 | 1.317 | .274[b] |
| | Residual | 14608.578 | 71 | 205.755 | | |
| | Total | 15150.500 | 73 | | | |

a. Dependent Variable: Teacher Self-Efficacy
b. Predictors: (Constant), Discipline and Motivation, Years of Experience

The model summary showed $R$ = .189, indicative of effect size between small and medium, as per Warner (2021). The model summary is shown in Table 15.

**Table 15**

*Model Summary*

| Model | *R* | $R^2$ | Adjusted $R^2$ | *SEM* |
|---|---|---|---|---|
| 1 | .189[a] | .036 | .009 | 14.344 |

a. Predictors: (Constant), Discipline and Motivation, Years of Experience

**$H_0$5: Professional Investment**

A multiple regression analysis was conducted to determine how accurately self-efficacy scores be predicted from a linear combination of years of teaching experience and the stress score in area of professional investment. The predictor variables were the years of teaching experience and the stress score in area of professional investment and the criterion variable was the self-efficacy scores. The linear combination of years of experience and the professional investment stress score was not significantly related to the self-efficacy scores, $F(2,71) = .62$, $p = .539$. The researcher failed to reject the null hypothesis. Table 16 provides the regression model results.

**Table 16**

*Regression Model Results*

| Model | | *SS* | *df* | *MS* | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 261.134 | 2 | 130.567 | .623 | .539[b] |
| | Residual | 14889.366 | 71 | 209.709 | | |
| | Total | 15150.500 | 73 | | | |

a. Dependent Variable: Teacher Self-Efficacy
b. Predictors: (Constant), Professional Investment, Years of Experience

The model summary showed $R = .131$, indicative of an effect size between small and medium as per Warner (2021). The model summary is shown in Table 17.

**Table 17**

*Model Summary*

| Model | *R* | $R^2$ | Adjusted $R^2$ | *SEM* |
|---|---|---|---|---|
| 1 | .131[a] | .017 | -.010 | 14.481 |

a. Predictors: (Constant), Professional Investment, Years of Experience

# CHAPTER FIVE: CONCLUSIONS

## Overview

This chapter begins with a discussion of the results from data analysis conducted in the previous chapter. The results of each research question are discussed, including a comparison of the finding of this study with other research studies. The implications of these findings are then described, as well as limitations for the study. The chapter concludes with suggestions for future research to add to the existing body of knowledge.

## Discussion

The purpose of this correlational study was to identify the relationship between stress levels, years of experience, and feelings of self-efficacy for special education teachers in central Tennessee. The research in this study was guided by five research questions. The criterion variable for each research question was self-efficacy scores from the TSES. The predictor variables for each research question included years of experience and one of the TSI subcategories of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. The null hypothesis results from this study will be considered as they compare to similar research and theories.

While other studies have been conducted on the impacts of stress for special education teachers (Cumming et al., 2021; Haydon et al., 2018; Kokkinos & Davazoglou, 2009; Love et al., 2020), there have been few studies that have considered the relationship between stress for special education teachers and their feelings of self-efficacy. The current study built on existing research on stress for special education teachers. This study aimed to fill the gap in research by determining if a relationship exists between special education teachers' stress levels, years of experience, and their feelings of self-efficacy.

Maslow's (1943) hierarchy of needs was founded on the idea that the motivation to fulfill lower needs outweighs the motivation to progress towards further needs until the most essential needs are met. According to Maslow's hierarchy, the lowest needs such as food, water, and shelter should be met before other needs and expectations can take priority (Maslow, 1943). This theory lays the framework for the concept that a teacher's basic needs must be met before they can focus attention on other needs such as their teaching responsibilities and careers.

**$H_0$1: Time Management**

The researcher failed to reject the first null hypothesis that there is no significant predictive relationship between self-efficacy scores and the linear combination of years teaching experience and the stress score in area of time management as measured by the TSI for special education teachers participating in this study. Cumming et al. (2021) found that educators who had more supportive working conditions including lower stress levels had higher levels of self-efficacy regarding instruction. This differs from the findings of the current study. However, Cumming et al.'s (2021) study focused on overall stress and did not differentiate between the different subcategories of stress. Additionally, that study focused on workload manageability and self-efficacy as a mediating factor, which was not considered in the present study (Cumming et al., 2021). The mean stress score for the time management subscale of the TSI was 3.27, indicating a moderately noticeable stress level in this area. Other studies have found that teachers experience stress from the amount of paperwork that is required to keep up with legal, curriculum, and state testing requirements (Haydon et al., 2018; Hester et al., 2020; Hogue & Taylor, 2020). These studies are consistent with the finding that teachers experience a moderately noticeable level of stress regarding time management.

**$H_0$2: Work-Related Stressors**

The researcher failed to reject the null hypothesis that there is no significant predictive relationship between self-efficacy scores and the linear combination of years teaching experience and the stress score in area of work-related stressors as measured by the TSI for special education teachers participating in this study. The work-related stressors subscale covers questions regarding caseloads sizes, lack of time to prepare lessons, the school day being too fast-paced, and too much work to do. Previous studies have shown that there is a relationship between stress in the workplace and feelings of self-efficacy. (Daniilidou et al., 2020; Dos Santos, 2021). Daniilidou et al. (2020) found that teachers who had higher self-efficacy levels were better able to manage stressful situations. Dos Santos (2021) found that work related stressors such as lack of needed materials, lack of appropriate teacher facilities, and feelings of isolation led to decreased self-efficacy for new teachers. The findings of these previous studies differ from the findings of the current study. However, the previous studies focused more on efficacy as it relates to burnout and did not study years of experience. The mean stress score for the work-related stressors subscale of the TSI was 3.27, indicating a moderately noticeable stress level in this area. Previous studies have shown that educators experience stress stemming from many of these areas (Bettini et al., 2020; Walker et al., 2021). The moderate level of stress found in this area is consistent with previous studies.

**$H_0$3: Professional Distress**

The researcher failed to reject the null hypothesis that there is no significant predictive relationship between self-efficacy scores and the linear combination of years teaching experience and the stress score in area of professional distress as measured by the TSI for special education teachers participating in this study. The questions on the professional distress subscale of the TSI

cover a lack of promotion opportunity, lack of respect and recognition for work, and inadequate salary (Fimian, 1988). Previous studies have shown that salary is an area of great concern for teachers, with teachers often feeling underpaid, overworked, and having to take on second or third jobs to make ends meet (Carver-Thomas & Darling-Hammond, 2017; Garcia & Weiss, 2019; Wiggan et al., 2021). In addition, studies have found that teachers feel frustration over advancement, career, and salary decisions being tied to high-stakes testing results (Cuevas et al., 2018; Hunter, 2020). These studies showed that teachers experience stress in these areas, however they did not study the relationship of this stress with feelings of self-efficacy or years of experience. The mean stress score for the professional distress subscale of the TSI was 3.13, indicating a moderately noticeable stress level in this area. This is consistent with the findings of previous studies that show stress for educators in this area.

**$H_0$4: Discipline and Motivation**

The researcher failed to reject the null hypothesis that there is no significant predictive relationship between self-efficacy scores and the linear combination of years teaching experience and the stress score in area of discipline and motivation as measured by the TSI for special education teachers participating in this study. The discipline and motivation subscale covers questions regarding discipline problems, student behavior, student motivation, and rejection of authority (Fimian, 1988). Previous studies have shown that educators experience stress regarding student discipline and behavior (Sharp-Donahoo et al., 2018; Walker et al., 2021). This is consistent with the mean stress score of 2.71 for the discipline and motivation subscale of the TSI in this study, indicating the low end of a moderately noticeable stress level in this area. Previous studies that show stress for educators in this area different from the results of this study in that they did not focus on the level of stress as it related to feelings of self-efficacy or years of

experience.

**$H_0$5: Professional Investment**

The researcher failed to reject the null hypothesis that there is no significant predictive relationship between self-efficacy scores and the linear combination of years teaching experience and the stress score in area of discipline and motivation as measured by the TSI for special education teachers participating in this study. The professional investment subscale of the TSI covers areas including lack of control over decisions, emotional stimulation at work, and opportunity for professional improvement (Fimian, 1988). Previous studies have shown that educators do experience stress in these areas (Bettini et al., 2020; Paige et al., 2019; Walker et al., 2021). This is consistent with the mean stress score of 2.52 for the professional investment subscale of the TSI in this study, indicating a barely noticeable to moderately noticeable stress level in this area. However, previous studies did not consider the relationship of this stress score with feelings of self-efficacy or years of experience.

## Implications

The goal of this study was to contribute to the existing body of knowledge pertaining to stress levels and feelings of self-efficacy for special education teachers. A gap in the literature was filled by exploring the relationship between stress levels, years of experience, and feelings of self-efficacy. No other study was found that researched the relationship between feelings of self-efficacy and the linear combination of years of experience and stress scores for special education teachers.

Previous studies have shown that there may be a relationship between feelings of self-efficacy and stress for teachers (Daniilidou et al., 2020; Dos Santos, 2021). The results of the present study showed that there were no statistically significant relationships between feelings of

self-efficacy and each linear combination of years of experience and the subscale stress scores of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. While no statistically significant relationship was found between each set of variables in this study, the results did show that special education teachers were experiencing high levels of stress.

The results showed that stress levels for teachers continue to be a problem in the field of education and have only been exacerbated by recent events such as the COVID-19 pandemic and teacher shortages. This study may aid in bringing awareness on the topic of teacher stress as it relates to special education teachers, and the impacts teachers stress can have on both student and teacher outcomes and successes. Of the 74 participants in the study, 43 had at least one subscale stress score of 4 or higher on a scale of 1-5, with many participants having more than one score in this range. Teachers in this study reported stress levels ranging from mild to severe in the areas of time management, work-related stressors, professional distress, discipline and motivation, and professional investment. These results show that high stress levels continue to be a problem for special education teachers who participated in this study.

This study is significant to teachers and educational stakeholders because the data showed that teachers are still experiencing high levels of stress regardless of how many years of teaching experience they have. It is important for education systems to work pro-actively to address high levels of teacher stress and find solutions to reduce teacher stress levels. Stress for special education teachers has been found to impact many areas of the education system in addition to impacting teachers on a professional and personal level (Auger & Formentin, 2021; Hester et al., 2020; Kara et al., 2021). It is essential that education systems identify the sources that cause stress for special education teachers and work to lessen the burdens of these teachers.

Prolonged periods of work-related stress have been shown to lead to burnout (Daniilidou et al., 2020; Kim & Buric, 2020; Smetackova, 2017). A concern for the teaching profession is that as educators continue to experience high levels of stress, they will eventually experience burnout and want to leave the teaching profession. This will only exacerbate the current teacher shortages and lead to continued vacancies in teaching positions. While some districts and states have chosen to reduce qualifications for teachers to fill these vacancies, it is concerning to think that positions once held by fully qualified and trained teachers would be filled by less qualified individuals. If fully trained teachers have difficulty managing the stress and demands of the job, it would follow that those who are not fully trained would experience the same challenges.

As high stress levels for special education teachers continue to prevail, it is more important than ever that education systems look at the sources of stress and the implications of stress on teachers, classrooms, and education systems. Systems should be put in place for reducing teacher stress. Continuing to study teacher stress and its implications is important to ensure the success of future students, teachers, and education systems.

## Limitations

Limitations of a study can impact both internal and external validity. One limitation of this study is that the total score of the TSI could not be calculated due to the research site prohibiting certain subscales of the TSI from being asked. While this does not have a negative impact on the validity of the subscale scores that were calculated, being able to use the total stress score for the TSI could potentially provide a more accurate picture of the total stress experienced by participants in this study. Another threat to validity is that the potential participants experiencing the highest levels of stress may not have felt able to complete the surveys due to their stress levels or time constraints. This could cause the results to be skewed

more towards participants who are not experiencing the highest levels of stress as compared to their peers. A further threat to validity is that all participants of the study were employed by the same school district. Some of the data regarding stress levels or feelings of self-efficacy could potentially be due to policies or stimuli that may not be present within another school district or in a different geographical location.

## Recommendations for Future Research

The following suggestions are made for future research to continue to expand upon the body of knowledge regarding special education teacher stress and feelings of self-efficacy:

- Repeat this research with a larger sample size to help with generalization.
- Explore the impacts of the COVID-19 pandemic on teacher stress levels and feelings of self-efficacy needs.
- Include gender as a variable in place of years of experience.
- Expand the study to include teachers from more than one district or more than one geographical area to ensure results are not district specific.
- Include special education teachers who have already left the profession or those who have previously taught special education but have moved to a different content area in future research. This could aid in understanding special education teacher stress as it relates to teacher turnover.
- Use all subscales and the total score for TSI in a similar study.
- Conduct qualitative research on what factors cause the most stress for current special education teachers.
- Use a more recently created instrument to measure teacher stress scores. This could ensure terminology used in survey questions is current.

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# APPENDICES

## APPENDIX A: TSI Permission

**Please provide information on the product(s) for which you are seeking permission.**
Good afternoon,

My name is Deborah Ellison and I am a doctoral candidate at Liberty University. I am reaching out in hopes of requesting permission to use the Teacher Stress Inventory (TSI) in my doctoral research. It is my understanding that Wiley owns the copyright for this inventory as the author, Michael Fimian, has now passed, and the original publisher, the Clinical Psychology Publishing Company, was acquired by Wiley.

My dissertation topic addresses the relationship between teacher years of experience, stress scores, and feelings of self-efficacy in special education teachers. I have researched the TSI and believe that this would be the best instrument to measure stress scores for teachers as part of my research. I am currently writing my prospectus and wanted to reach out to obtain written permission to use the TSI.

Thank you for your time and consideration.

Deborah Ellison
Doctoral Candidate
Liberty University School of Education

WP

Wiley Global Permissions [redacted]

To: Ellison, Deborah Joy

Fri 7/1/2022 4:58 AM

Dear Deborah,

Thank you for your email.

Permission is granted for you to use the material requested for your thesis/dissertation subject to the usual acknowledgements (author, title of material, title of book/journal, we as publisher) and on the understanding that you will reapply for permission if you wish to distribute or publish your thesis/dissertation commercially.

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Any third-party material is expressly excluded from this permission. If any material appears within the article with credit to another source, authorisation from that source must be obtained.

Should you require any further information, please do not hesitate to contact me.

Kind regards

[redacted]

## APPENDIX B: Demographics Questionnaire

Demographics Questionnaire:

1. What is your current teaching assignment? (Special education teacher, general education teacher, other)
2. What type of classroom environment do you currently teach in? (resource/inclusion, self-contained, itinerant, special day school, other)
3. How many years of teaching experience do you have? (0-5, 6-10, 10+)
4. What is your gender? (Male/Female/Prefer not to say)
5. What is your age? (18-25, 26-35, 36-45, 46-55, 56-65, 65+)
6. What is your highest level of education? (High school, Associate's, Bachelor's, Master's, Education Specialist, Doctorate)

# APPENDIX C: TSES Permission

EJ

Ellison, Deborah Joy

To: [redacted]

Sun 7/10/2022 11:01 AM

Good afternoon,

My name is Deborah Ellison and I am a doctoral candidate at Liberty University. I am reaching out to request permission to use the TSES survey you created with Dr. Tschannen-Moran.

My dissertation topic addresses the relationship between teacher years of experience, stress scores, and feelings of self-efficacy in special education teachers. I have researched your instrument and believe that this would be the best instrument to measure the self-efficacy portion of my research. I am currently writing my prospectus and wanted to reach out to obtain written permission to use the TSES.

I appreciate your time and consideration, and look forward to hearing from you.

Deborah Ellison
Doctoral Candidate
Liberty University School of Education

---

AH

Anita Woolfolk Hoy [redacted]

To: Ellison, Deborah Joy

Sun 7/10/2022 3:33 PM

[ EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content. ]

---

You are welcome to use the TSES in your research as you describe below. This website might be helpful to you:

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

Best wishes in your work.

*Anita*

ANITA WOOLFOLK HOY, PHD
PROFESSOR EMERITA
THE OHIO STATE UNIVERSITY
[redacted]

# APPENDIX D: IRB Approval



**[External] IRB-FY22-23-201 - Initial: Initial - Exempt**

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
Tue 9/20/2022 9:02 AM
[redacted]

[ EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content. ]

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

September 20, 2022

Deborah Ellison
Laura Mansfield

Re: IRB Exemption - IRB-FY22-23-201 The Relationship Between Self-Efficacy, Years of Experience, and Stress Scores for Special Education Teachers in Central Tennessee

Dear Deborah Ellison, Laura Mansfield,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

**Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB.** Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
**G. Michele Baker, MA, CIP**
*Administrative Chair of Institutional Research*
**Research Ethics Office**

# APPENDIX E: Permission from School District

[redacted]

[redacted] *Department of Research, Assessment, and Evaluation*

September 29, 2022

Ms. Deborah Ellison
[redacted]

RE: The Relationship between Self-Efficacy, Years of Experience, and Stress Scores for Special Education Teachers in Central Tennessee

Dear Ms. Ellison:

Your research proposal has been reviewed by [redacted] and I am pleased to inform you that it has been approved with the following conditions:

1. Remove all manifestation questions from the survey (#s 30-49).
2. Postpone the survey until November 2022 to avoid overlap with the [redacted] School Climate Survey.
3. Share all data outcomes from the study with [redacted] so their department can use the information to make decisions on supports for our special education teachers

We hope that your investigation proceeds smoothly and that your research questions are answered conclusively. We encourage you to amend your principal, teacher, student and parent consent forms and communications to include a notification of [redacted] RRC approval of your study. As a reminder, participation within external research projects is always optional for students, parents, and teachers. **Additionally, the executive director and school principal at each [redacted] school has complete discretion to disallow research projects to occur within his or her school.** *Please only contact principals about entering school buildings for the purpose of in-person research.* You should include a copy of your [redacted] formal approval letter in your initial communication.

[redacted] is pleased to approve proposals that are protective of [redacted] instructional time, attentive to privacy issues, and aligned with current district instructional efforts. The district is partially motivated by the desire to have results from real-time, externally valid research available to district administrators and policymakers. Toward this goal, you will be required to submit a two-to-four-page research brief summarizing your research method, process and results. This document will be shared with appropriate district staff and potentially be posted on our website. Submit this research brief by email to the RAE department.

Direct any questions or comments concerning this decision to [redacted] within the Department of Research, Assessment. Please include reference code **22_9_7_Ellison** in future correspondence with us regarding this study.

Respectfully,

[redacted] *Research Review Committee*

Department of Research, Assessment, and Evaluation
Department of Curriculum & Instruction
Office of Federal Programs & Grants

[redacted]

# APPENDIX F: Participant Consent

## Consent

**Title of the Project:** The Relationship between Self-Efficacy, Years of Experience, and Stress Scores for Special Education Teachers in Central Tennessee
**Principal Investigator:** Deborah Ellison, Doctoral Candidate, Liberty University

### Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a full-time special education teacher in pre-K through 12th grade in central Tennessee. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

### What is the study about and why is it being done?

The purpose of the study is to identify the relationship between stress scores, years of experience, and feelings of self-efficacy for special education teachers in central Tennessee. Few recent studies have looked at the relationship between stress scores and feelings of self-efficacy for special education teachers.

### What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Complete the online survey which includes demographic information and survey questions (20-25 minutes).

### How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include increased knowledge and awareness of teacher stress and feelings of self-efficacy as it applies to special education teachers.

### What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

### How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

**How will you be compensated for being part of the study?**

Participants may be compensated for participating in this study. However, participants may choose to leave an email address for entry into a drawing for one of four $25 gift cards. Email addresses will be requested for this purpose; however, they will be pulled and separated from your responses to maintain your anonymity.

**Is study participation voluntary?**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

**What should you do if you decide to withdraw from the study?**

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

**Whom do you contact if you have questions or concerns about the study?**

The researcher conducting this study is Deborah Ellison. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] You may also contact the researcher's faculty sponsor, Laura Mansfield, at [redacted]

**Whom do you contact if you have questions about your rights as a research participant?**

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

*Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.*

**Your Consent**

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.