# A COMPARATIVE STUDY OF ELEMENTARY TEACHER EFFICACY IN CHRISTIAN PRIVATE SCHOOLS AND PUBLIC SCHOOLS

by

Jasmine Floyd

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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## ABSTRACT

The purpose of this quantitative causal-comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. Teacher efficacy shapes instructional performance and student academic achievement, so a deeper study of public and Christian school teacher efficacy was significant to recognize factors present in each type of school that could impact instruction and achievement. This study consisted of a convenience sample of 229 teachers of kindergarten through fifth grade at Christian private and public schools in the southeastern United States. The Teachers' Sense of Efficacy Scale (TSES) was used as the instrument in this study to measure teacher efficacy among the Christian private and public school teachers that were digitally surveyed. The survey data were collected electronically and inputted into SPSS. Data analysis was conducted by using a multivariate analysis of variance, which compared the categorical independent variable groups of teacher employment type between the four dependent variables of overall efficacy, instructional strategies, classroom management, and student engagement. The analysis revealed that there was a significant difference between Christian private and public school teachers in overall efficacy, instructional strategies, classroom management, and student engagement. This analysis allowed for discussion of the results and drawing conclusions that addressed the hypothesis. Further recommendations were made for research in different school settings and teacher demographics to deepen the literature available for making decisions that impact teaching and learning.


*Keywords*: teacher efficacy, instructional strategies, classroom management, student engagement, public school, Christian private school

**Copyright Page**

## Dedication

I dedicate this writing to my Lord and Savior, Jesus Christ. His never-ending and abundant love for me has gifted me with the strength and endurance to reach greater heights of academic pursuits than I could have ever imagined when I dreamt of becoming a teacher as a young girl. God has immensely blessed me with a support system of family and friends to help reach my goals. My greatest desire is that my life will make much of Him as I use my education to glorify His name and advance His Kingdom.

Additionally, I dedicate this to my loving and ever-patient husband, Micheal. Despite my doubts of pursing a PhD at this stage in my life, Mike has been my ever-present cheerleader and encourager throughout this process. The past two years have been filled with exhausting nights of writing and more writing, and Mike has always been there to support me, often bearing gifts of strong coffee on those late nights. He has sacrificed his time to allow me to pursue this dream and truly embodied the Gospel's command in Ephesians 5:25 of loving your wife "just as Christ loved the church and gave Himself for her" (*She Reads Truth Bible*, *Christian Standard Bible,* 2017). Thank you, Mike, for never doubting that I could one day become Dr. Floyd.

My precious and vibrant daughter, Piper, your continual prayers for "mommy to be able to finish her schoolwork" have been greatly appreciated and answered by our Savior. "Dr. Mommy," as you have affectionally coined me, prays you will see my academic perseverance as an example for your own future endeavors. To my loving mom, Marisol, your many sacrifices throughout my childhood have allowed me to attain this academic goal. I am thankful the Lord has blessed me with a godly mother, who has never stopped praying for me and my success. Thank you for your constant support and encouragement.

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I thank my dissertation committee for their support and guidance. Dr. Jessica Talada, my chair, for her clear feedback, encouraging words, and continual support through these many months of writing and editing. Thank you for helping me reach my insanely speedy timeline. Dr. Amy Jones, my committee member, for her timely feedback that allowed me to reach deadlines and better refine my work and thinking about my study.

To the many phenomenal teachers, principals, instructional coaches, and district leaders whom I have been blessed to learn from in my 13 years of public education: Each of you have filled me with a wealth of knowledge, made me reflect on my practice, and driven me to become a better educator and leader. To the hundreds of elementary students that I have been privileged to teach, thank you for challenging me, encouraging me, and being a constant reminder of my "why" for working in education.

Most importantly, I thank my Lord for the ability to persevere and for His constant presence in my life. My God had blessed me immensely and never ceases to amaze me with the plans He has in store for my life. I now pray that as many have poured into me and my own education, I can glorify the Lord by pouring into others and creating learning environments that enable others to thrive and lead in education.

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Institutional Review Board (IRB)

Multivariate analysis of variance (MANOVA)

Teachers' Sense of Efficacy Scale (TSES)

# CHAPTER ONE: INTRODUCTION

## Overview

The purpose of this quantitative causal comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in scores of overall efficacy, instructional strategies, classroom management, and student engagement. Chapter One provides a background of the historical, theoretical, and societal perspectives that shape self-efficacy development in public and Christian schools. The problem examined in this study is a lack of research studies in Christian school teacher efficacy. This problem is further supported with an analysis of the significance of the study followed by the research question and an explanation of key terms that were used throughout the study.

## Background

Although measuring student achievement has been a focal point in education for decades with greater emphasis more recently stemming from standardized testing and increased curricular standards, current trends in education have revealed factors negatively impacting student achievement. Most notably, the COVID-19 pandemic has revealed that student achievement and gains have decreased when compared to pre-pandemic years (Office for Civil Rights, 2021). The COVID-19 pandemic has revolutionized how teaching and learning have been delivered and evaluated. These changes have resulted in increased enrollments for many Christian private schools as parents sought alternatives to public education. As these Christian schools experienced increased enrollment, a better understanding of teacher self-efficacy levels in Christian schools compared to public schools is needed to develop a clearer perspective of factors impacting student achievement (Swaner & Lee, 2020).

Teacher efficacy is a predictor of student academic achievement (Engin, 2020; Tschannen-Moran & Woolfolk Hoy, 2001). Self-efficacy is the belief that an individual holds about their ability to successfully accomplish a task (Bandura, 1977a). Increased teacher self-efficacy has shown a positive relationship in increasing student academic achievement (Kyung & Eun, 2018). Additionally, classroom management, student engagement, and instructional strategies impact teacher efficacy levels (Tschannen-Moran et al., 1998). These factors differ among Christian and public schools, as private schools tend to allow for greater teacher autonomy while public schools place more emphasis on teacher certification and reform-based instructional practices (Lubienski et al., 2008). Furthermore, environmental factors can also impact efficacy levels as private school effectiveness has been tied to community building and unity in mission (Coleman & Hoffer, 1987; Ingersoll, 2001). Ultimately, teachers with greater self-efficacy created better learning environments for their students (Zee et al., 2016). The factors that influence teacher efficacy can be better understood through a historical perspective of how the study of efficacy has developed.

**Historical Overview**

Efficacy became a focus with Bandura's (1977a) seminal work, which aimed to better understand how cognitive beliefs impacted behaviors. This study of efficacy drew upon the early work of the 1920s–1950s in cognitive and behavioral learning, whereas earlier learning frameworks focused on behavioral responses to stimuli. A shift occurred when Bandura (1977a) developed the theory of self-efficacy to explain how behaviors were affected by self-beliefs. This shift led to a focus on the relationship between cognitive processes and the behaviors towards an outcome. As efficacy was further studied, determining the motivational levels of individuals revealed how goals were attained and efficacy was developed. Gaining a better understanding of

the thought systems that impacted efficacy development provided applications for the field of education.

In the realm of education, the theory of efficacy explained how teachers developed self-concepts about that ability to effectively meet student learning needs. Teacher efficacy has been shown to be a predictor of student achievement (Engin, 2020; Tschannen-Moran & Woolfolk Hoy, 2001) and, as such, has become a greater emphasis in schools across the nation. More recently, this focus has shifted educational leadership perspectives on efficacy and the need to better understand factors that lead to increased efficacy (Shakeel et al., 2021). These factors can be varied based upon the demographic experiences by elementary teachers in Christian private schools and public schools.

Public school education in America has undergone many changes since its early foundation in the 1830s with Horace Mann's Common School Movement, which introduced governmentally funded schooling that aimed to reduce poverty and crime (Smith, 2020). Early public schools in America focused on developing children to be productive members of the community, and as time passed this goal was further supported with federal oversight and funding (Fife, 2013). In more modern times, public school teachers in the 21st century are increasingly faced with teaching a plethora of state standards, standardized testing, and formal evaluations. These requirements have stemmed from presidential education initiatives aimed to increase achievement and accountability, like President Obama's Race to the Top and President Bush's No Child Left Behind (Smith, 2020). These initiatives and requirements influence teacher efficacy development, which impacts emotional health, motivational levels, and individual performance (Bandura, 2006). High-stakes, evaluative methods have been found to induce teacher stress, which can impact instruction without the proper supports in place (D. Thomas &

Wieczorek, 2019). In addition to these factors, public schools serve a multitude of socioeconomic communities and special needs, at-risk, and second language students that pose the need for additional consideration of how the demographics of school populations affect teacher efficacy. These factors can bolster teacher–student relationships or create issues with job stress or dissatisfaction, which can increase or decrease efficacy levels. The external environmental factors presented in public schools have led to teacher burnout from decreased levels of efficacy (Shakeel et al., 2021). These decreased levels of efficacy can also lead to feelings of exhaustion and apathy towards a job (Jiao et al., 2021). As teacher accountability has increased in public schools, efficacy levels have been shaped, leading to opportunities for reflection that impact teaching and learning and reveal differences between public and Christian schooling.

Christian education has been present in America since the Puritans in the 1600s utilized schooling to teach biblical concepts and academic content. As towns in colonial America grew, communities financially contributed to the operation of schoolhouses for their children (Smith, 2020). This communal funding of schools became the early foundation for the privatized Christian schools that can be found throughout the nation in present day. Although once the majority option for schooling in early America, private schools currently have much smaller enrollment than public schools across the nation with only 10% of elementary and secondary students attending private schools in 2015 (National Center for Education Statistics, 2019).

Additionally, Christian schools are comprised of different student demographics than public schools with more affluent families represented in private schools since the schools are funded by the families represented. Statistical analyses in 2016 found that 8% of private school students, compared to 18% of public school students, were living below the poverty threshold

(National Center for Education Statistics, 2019). Also, parental empowerment, satisfaction, and involvement tend to be greater in private schools than public schools (Hamlin & Cheng, 2020; Swaner & Lee, 2020). This parental influence can create a positive impact on teacher efficacy levels. Christian schools are often smaller than private schools and have a greater representation of parental involvement, which are factors that positively influence school climate (Lubienski et al., 2008; Swaner & Lee, 2020). Positive development of school climate also results in higher teacher efficacy (Shakeel et al., 2021). Furthermore, teachers in Christian schools are more likely to tie their faith and values with instructional strategies (Boateng & Sekyere, 2018). Christian educators draw from their faith and hope as a source of witness with their teaching (Hansen, 2017). The unique demographics present in a private school setting can reveal some factors that differ from that of public school settings, which could impact efficacy development.

**Society-at-Large**

Teacher efficacy also has a widespread impact outside of Christian and public schools and influences the greater society. Education has an impact on the surrounding community through the learning that is relayed to students. Teacher efficacy can impact the level and quality of learning that takes place, thus impacting the greater community. This is especially critical in lower income communities where high-quality education can provide opportunities that may not be naturally occurring within the community. As teachers with higher efficacy levels generally possess the belief that all students can learn (Prewett & Whitney, 2021), developing teacher efficacy can help support the growth of all students within a community. Furthermore, since narrowing the achievement gap involves teacher reforms and an increase of classroom skill sets (Hanson et al., 2020), a focus on teacher efficacy can support the academic growth of struggling communities. Since Christian private schools tend to pull student enrollment from more affluent

communities, this issue may be one that is more focused on the efficacy development of public school teachers. However, in Christian schools, developed teacher efficacy can support the goal of faith-based communities in edifying Christ through high-quality work. Education scaffolds the framework for productive societies, so a focus on teacher efficacy can create a society that is more attuned to seeking quality teaching and learning overall.

Within the microcosm of school society, levels of teacher efficacy within schools impact classroom processes, teacher well-being, and students' adjustment (Zee & Koomen, 2016). It was found that pre-service educators with high self-efficacy were more likely to utilize learner-centered instructional approaches compared to more traditional methods implemented by those with low self-efficacy (Dunn & Rakes, 2011; Temiz & Topcu, 2013). When efficacy levels of teachers overall are high, classrooms are better primed for success, and environments that cultivate teacher support, enthusiasm, and responsiveness are developed (Guo et al., 2012). These environments are conducive for students' success and for teachers to grow in their pedagogical practices. The impact of high teacher efficacy was greatest at the elementary school level (Zee & Koomen, 2016) where students spend most of their day with the same teacher. This could be attributed to the ability to develop stronger relationships in elementary due to longer periods of time with the same teacher, compared to secondary teachers who see more students in less time. Thus, a focused comparison of elementary Christian and public school teachers can provide better support to this finding.

Additionally, teacher efficacy levels impact students individually based on specific student needs. Teacher efficacy during at home learning was found to be lower when instructing at-risk students, such as those with low socioeconomic status or language learners (Kast et al., 2021). Efficacy also impacts teachers' development of their own motivation, emotional health,

and performance (Bandura, 2006). Furthermore, from the perspective of the social exchange theory, teachers that work in schools with high-quality environments and resources will feel more supportive of their school and thus feel like they must give back, putting in more effort and time to offer retribution to the value they are sensing (Shakeel et al., 2021). Since private schools tend to have more resources and autonomy for teachers, this theory could be demonstrated more than in public schools, impacting differences in teacher efficacy. These differences may not all be positive for private schools though, as increased autonomy may result in less educational reforms that can benefit teaching and learning (Lubienski et al., 2008). These multifaceted impacts illustrate that the teaching culture at a school or even within a school district can be shaped by efficacy levels, either positively or negatively. Efficacy levels also impact a person's choices and self-regulation, which directly impacts students and other school staff (Bandura, 1977a).

Self-efficacy has been found to have an influence on job satisfaction. Increased efficacy levels correlate with increased job satisfaction (Kasalak & Dagyar, 2020; Zee & Koomen, 2016). Increased job satisfaction can have a positive impact on a school and district by decreasing employee turnover. Private schools have leveraged the strength of teacher and administrator autonomy as a benefit (Lubienski et al., 2008), which could also be a contributor to increased job satisfaction for that demographic. Additionally, by ensuring employees receive adequate professional development that supports efficacy development, job satisfaction can increase, resulting in decreased turnover (Jannat et al., 2020). As over 90% of private and public school teachers reported participating in professional development, this could be a positive influencer on efficacy development and job satisfaction (National Center for Education Statistics, 2020). More specifically, 99% of public school teachers compared to 94% of private school teachers

attended professional development, so a small disparity may be found when comparing the two groups. Decreased turnover impacts the larger educational community by creating an organization with more experienced educators and providing opportunities for increased professional development and goal attainment.

The far-reaching impacts of teacher efficacy on society affect the structures and scaffolds of educational systems. Educational systems benefit from measuring teacher efficacy levels to better understand areas for improvement or growth within schools. Increasing efficacy levels impacts students, other teachers, and the educational community by creating environments where learning is supported, and teachers are more confident in their abilities to enact positive changes in student academic achievement. The impacts that self-efficacy have on student achievement and teacher job satisfaction can be studied by school leadership and educational and community stakeholders to best plan for support and resources for developing levels of efficacy to create more conducive learning environments throughout communities. Understanding the differences in efficacy levels between public and Christian private school teachers provides better research about teaching and learning at these different schools and what factors propel or hinder teacher efficacy development that can impact the greater society through the students that progress through these schools and, ultimately, shape the surrounding society.

**Theoretical Background**

As efficacy impacts society and teacher development, its foundation is based on a theoretical framework of self-beliefs and confidence that lead to behaviors. Self-efficacy, specifically, pertains to a person's confidence in their ability to reach a desired outcome (Bandura, 1977a, 2006; Greene, 2018). Bandura (1977a) developed the theory of self-efficacy to explain how beliefs about the ability to accomplish a task can affect behavior. His theory

stemmed from the social cognitive theory, which focused on how thinking related to experiences with the environment, feelings, and behaviors (Greene, 2018). Through cognitive processes, beliefs are shaped that impact behaviors; thus, the social cognitive theory provides the framework for a better understanding of how self-efficacy is developed through the shaping of an individual's confidence levels. Developing an understanding of how belief systems and confidence are developed in accomplishing a task provided a framework for understanding how efficacy affects teachers and their effectiveness as educators. The theory of self-efficacy explains how cognitive processes are developed and shaped to affect how an outcome is met and the confidence in meeting that outcome. Self-efficacy theory explains how beliefs impact actions and behaviors (Bandura, 1977a). These beliefs determine an individual's efficacy levels and are shaped by external and internal factors present in the environment.

The behaviors or motivators that influence self-efficacy are shaped by cognitive processes. An individual can have the necessary information to reach an outcome, but their ability to believe they can reach that outcome reveals the strength of the cognitive processes (Bandura, 1977a). Self-efficacy levels impact whether a goal is accomplished and the amount of effort put forth to meet that goal. An individual that is motivated to accomplish a task will develop greater self-efficacy in the process. Teachers are impacted by many factors in a school setting that influence how they cognitively process their ability to meet a goal. Developing a better understanding of how those factors influence the self-efficacy of teachers in public and Christian schools provides useful information that can impact and change what methods are used to best meet goals in schools.

## Problem Statement

Increasing student academic achievement is the goal of both Christian private and public schools. Research has shown that teacher efficacy has a significant influence on academic achievement (Engin, 2020; Tschannen-Moran & Woolfolk Hoy, 2001). As the COVID-19 pandemic has revealed, many families have chosen to enroll their students in Christian schools and forgo public education (Swaner & Lee, 2020). Thus, developing a better understanding of the differences in teachers' efficacy can better impact teaching and learning in both Christian and public schools (Kyung & Eun, 2018).

Although many studies have examined teacher efficacy, little research exists regarding Christian school teacher efficacy or comparing these teachers to their counterparts in public education. This study addresses this gap by focusing on elementary school teachers and comparing Christian and public school educators. Researchers have suggested that additional studies be conducted on teacher efficacy with greater and more widespread and diverse population samples (Boateng & Sekyere, 2018; Pressley & Ha, 2021). As such, this study was conducted after a thorough search revealed a gap in the literature in the areas of Christian school teacher efficacy and comparative study of Christian and public school teacher efficacy. Prior research has revealed the need for more varied data sets among participants (Engin, 2020), which this study addresses with private and public school educators. Additional research was also needed in the beliefs and motivation of religious education teachers and the impact of those beliefs on self-efficacy levels (Elliott et al., 2019). Furthermore, much of the existing literature is focused on secondary teachers, whereas less research for elementary teachers is available (Oppermann & Lazarides, 2021). The problem is that despite extensive research knowledge

about the large impact of efficacy on student achievement, there is a gap in the literature depicting the self-perceived efficacy of Christian elementary school educators.

## Purpose Statement

The purpose of this quantitative causal-comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. Four dependent variables including overall teacher efficacy, student engagement, instructional strategies, and classroom management were studied to determine if there was a difference between the independent variable groups of employment type of elementary teachers, Christian private or public school. Teacher efficacy is the belief that teachers hold in their ability to effectively impact student learning (Bandura, 1977a; Hattie & Anderman, 2019; Tschannen-Moran & Woolfolk Hoy, 2001). Student engagement entails how students are focused on the learning, and it is also an influencer on academic achievement. Instructional strategies comprise the pedagogical practices implemented by the teacher, while classroom management is focused on how student behaviors and interactions are managed during instruction (Hattie & Anderman, 2019). The independent variable is the employment type of elementary teachers. The groups that made up the independent variable consisted of Christian private and public school teachers of kindergarten through fifth grade. The population sample included kindergarten through fifth grade teachers from Christian and public schools in the southeastern United States. The variables were studied using the Teachers' Sense of Efficacy Scale (TSES) to draw comparisons among public school and Christian school educators (Tschannen-Moran & Woolfolk Hoy, 2001).

## Significance of the Study

Instructional performance and student academic achievement are greatly impacted by teacher efficacy levels (Tschannen-Moran et al., 1998). Thus, studying teacher efficacy more deeply is necessary to better understand how to positively impact pedagogy and student learning. A comparative study of public and Christian school teacher efficacy was significant to recognize factors present in each type of school that could impact instruction and achievement. These findings can be used by school leadership to make instructional decisions and provide professional development that can improve schools. Furthermore, as professional development is provided and a positive learning environment is supported, teacher efficacy increases (Shakeel et al., 2021).

Additionally, the COVID-19 pandemic has resulted in increased student enrollment in private schools (Swaner & Lee, 2020). This further demonstrates the need to better understand how efficacy is shaped in Christian schools to best meet the needs of students transitioning from public to private schools. Christian schools aim to make disciples for Christ while teaching academic content. As such, it is paramount to study what factors affect that goal's attainment and how those factors compare with public schools and their goals for student achievement. Additionally, Christian education aims to strive for excellence as a testament to working for the Lord, and Christians are reminded in scripture that "whatever you do, do it from the heart, as something done for the Lord and not for people" (*She Reads Truth Bible*, *Christian Standard Bible,* 2017, Colossians 3:23). Therefore, the findings and knowledge gathered can be beneficial to share with Christian administrators for improving teacher efficacy and overall teaching and learning while honoring the Lord's commands. Furthermore, educators impact young minds, and

understanding efficacy development can be beneficial to the healthy, educational development of a great number of students in public and Christian private schools.

Studying teacher efficacy can provide insight for teacher preparation programs in secular and Christian teacher training institutions. Thus, changes can be made before teachers enter their professions, ensuring pre-service educators receive instructional strategies that build confidence in teaching abilities before beginning their careers (El-Abd & Chaaban, 2021). Providing opportunities for pre-service educators to develop their efficacy levels by better understanding teaching and learning practices before entering the classroom full-time will allow for effective change to occur in schools (Bondar et al., 2021). A deeper analysis of teacher efficacy within the demographics of elementary public and Christian school teachers can provide findings that impact current and future teachers, educational leaders, and students.

## Research Question

**RQ:** Is there a difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management?

## Definitions

1. *Christian private school* – Christian schools are privately funded, generally by the families of enrolled students. These schools focus on faith-based instruction of curricular content. Christian schools are often smaller than public schools and obtain greater parental involvement (Swaner & Lee, 2020).
2. *Classroom management* – Classroom management outlines how teachers structure student routines and behaviors within their classrooms (Zee et al., 2016).

3. *Instructional strategies* – Instructional strategies are the techniques integrated within teaching that impact student achievement. Teachers who consider themselves to be effective teachers will utilize more instructional strategies that positively impact student achievement (Hattie & Anderman, 2019).
4. *Public school* – Public schools are governmentally funded, secular institutions for teaching and learning. Public schools, on average, have higher student enrollments and greater minority and lower socioeconomic student populations than private schools (National Center for Education Statistics, 2020).
5. *Self-efficacy* – Self-efficacy is the personal belief system that an individual holds about the ability to successfully complete a desired outcome (Bandura, 1977a, 2006; Greene, 2018).
6. *Student engagement* – Student engagement can be measured by the motivation that students possess to complete work, especially when the work is considered uninteresting to the student (Tschannen-Moran & Woolfolk Hoy, 2007).
7. *TSES* – The Teachers' Sense of Efficacy Scale measures self-efficacy by analyzing the domains of classroom management, instructional strategies, and student engagement (Tschannen-Moran & Woolfolk Hoy, 2001; Zee et al., 2016).

# CHAPTER TWO: LITERATURE REVIEW

## Overview

A review of literature was completed to further research Christian private and public school elementary teacher efficacy. This chapter reveals evidence of the current literature related to teacher efficacy. To begin the exploration, the theoretical framework of self-efficacy within the social cognitive theory is presented followed by a synthesis of recent literature regarding teacher efficacy and its effect on job satisfaction and student achievement based on efficacy scales. Themes surrounding teacher efficacy with instructional strategies, classroom management, and student engagement are explored. These themes are further studied based on demographics, such as gender, age, and culture, and how these factors influence self-efficacy. Furthermore, a comparative review of public and Christian private school teacher efficacy differences is conducted. This presentation reveals a gap in the literature regarding a comparative review of teacher efficacy in Christian private and public school elementary teachers, supporting the need for the study to be conducted.

## Theoretical Framework

The literature review presents current research of teacher efficacy in Christian and public schools through the lens of the theory of self-efficacy and social cognitive theory. Self-efficacy is the personal belief system that an individual holds about the ability to successfully complete a desired outcome (Bandura, 1977a, 2006; Greene, 2018). Based on the theory of self-efficacy, an individual's perceived sense of success towards accomplishing a task will determine how long and how much effort is put towards accomplishing the task (Bandura, 1977a). This theory is reflected in teachers and their efficacy levels towards teaching. Efficacy can be understood through the lens of the social cognitive theory, which explains the cognitive processes that

impact behaviors. Since many factors influence efficacy levels, a comparative analysis of Christian and public school educators reveals factors that may influence perceived self-efficacy.

**Social Cognitive Theory**

The social cognitive theory was developed by Albert Bandura to explain the cognitive processes involved in human behaviors and the factors that influenced those behaviors. This theory was a shift from behaviorism, which focused on reinforcements as regulators of behavior versus cognitive processes as drivers of behaviors (Greene, 2018). Bandura theorized that individuals were driven by "a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (Bandura, 1986, p. 18). The interactions between cognitive processes, social contexts, and behaviors impact how humans act and interact (Greene, 2018). The social cognitive theory is based on the principal that humans act as agents of change as they observe behavioral influences and react to those based on learned experiences (Bandura, 2001). This agency drives the belief structures and overall systems that comprise a person's consciousness (Beswick, 2017). As consciousness is shaped, beliefs are instilled that impact future social interactions and behaviors.

When applying the social cognitive theory in classrooms, students and teachers can control how learning occurs based upon the environments they help shape (Fletcher, 2018). Additionally, learned experiences can be acquired vicariously through observing others (Bandura, 1986). Through the observations of others, people can receive information through modeling that provides motivation for completing the observed behavior (Lee, 2020). Through observational learning, subsequent behaviors can be shaped (Schunk, 2020). These behaviors are developed through social interactions that impact cognitive learning. Through these social interactions, knowledge is constructed about one's abilities and individual confidence and thus,

efficacy levels are developed. Furthermore, individual confidence is built in the ability to complete a task successfully after observing another individual who is similar to oneself also completing the task (Bandura, 1977b; Pandee et al., 2020). These modeled behaviors from observational learning are also more readily accepted and replicated when the results are valuable to the individual (Bandura, 1977b). Furthermore, Bandura (1986) posited that through self-regulation and reflection, humans can be motivated to attain certain behaviors. This theory focused on human nature that determines how thoughts are processed and learning is achieved. According to the social cognitive theory, this cognitive processing is grounded in interdependent relationships of influencer interactions.

### *Triadic Reciprocality*

Behavioral, personal, and environmental influences operate in a reciprocal relationship within the social cognitive theory (Bandura, 1977a, 1986; Pandee et al., 2020). Bandura explained that although working in a reciprocal relationship, each influencer has different strengths of impact depending on environmental variables and situations present. The interrelationships also change frequently (Jenkins, 2020). The interconnectedness of each determinant is affected by the situation and how it is perceived by an individual. The belief systems of individuals impact the processing of behaviors (Bandura, 1986; Greene, 2018). These belief systems are shaped through the perspective of the intended outcomes of behaviors and a relationship of "continuous interaction between personal and situational sources of influence" (Bandura, 1977b, p. 109). Behavioral, personal, and environmental influences interact in an interdependent relationship with each affecting how information is processed, and the behaviors that follow are acted upon by the individual (Bandura, 1986; Greene, 2018). These behaviors are then reflected upon by individuals and result in environmental changes, which further impact

future behaviors (Greene, 2018). Self-reflection in education is an example of this triadic relationship at work, as students and teachers reflect upon the behavioral, personal, and situational influencers that affect teaching and learning (Fletcher, 2018). “What people think, believe, and feels affects how they behave” (Bandura, 1986, p. 25). Belief systems impact the actions of an individual. As self-beliefs are shaped, efficacy is affected, in turn affecting how a task is accomplished. Behaviors are shaped by internal and external influences, but these influences work together to develop belief systems and determine subsequent behaviors that shape the development of self-efficacy levels.

**Theory of Self-Efficacy**

The theory of self-efficacy was developed by Albert Bandura as a method to explain how behaviors were achieved in a variety of formats (Bandura, 1977a). This theory posited that an individual’s belief of how they can accomplish something will affect their behavior (Bandura, 1977a; Greene, 2018). Despite an individual understanding what information is necessary to reach an outcome, the belief that they can accomplish it is the determining factor that makes self-efficacy an impactful cognitive process (Bandura, 1977a). These beliefs can be shaped by “distal (past) or proximal (current or immediate)” sources of information with proximal sources generally having a greater influence on self-efficacy (Maddux, 1995, p. 12). However, past experiences have been found to have a greater effect on efficacy when prior success was attained (Greene, 2018). It is surmised that behaviors act as motivators that influence an individual’s outlook about their ability to reach a goal or meet and complete an outcome. These outcome behaviors are achieved by the level of efficacy present that determines how much effort is exerted by someone to reach the outcome behavior. The greater effort an individual is willing to utilize will result in increased levels of self-efficacy as confidence is bolstered. Conversely, those

who possess higher self-efficacy about a task will be more likely to persist longer towards accomplishing a task (Shipherd, 2019). Current research has also found that individual self-efficacy has increased over time. This research cited modern day social developments as agents of change associated with the increased levels of self-efficacy. These social developments have resulted in changes that demonstrate overconfidence and increased self-centeredness (Jiao et al., 2021). As such, it can be noted that self-efficacy can change over time as society impacts development. Additionally, when considering the development of self-efficacy in teachers, it was found that a reflection on an individual's personal identity was necessary for truly understanding the impacts that self-reflection has on efficacy development (Marschall & Watson, 2022). These influences of modern-day society illustrate the evolving development of self-efficacy.

### *Self-Efficacy and Social Cognitive Theory*

Self-efficacy theory provides a further explanation of the cognitive connection to controlling behaviors (Beswick, 2017). This connection interacts with the shaping of belief systems that impact task completion and abilities. Efficacy is comprised of "cognitive, social, and behavioral subskills" that interact to determine an individual's confidence level towards achieving a goal (Bandura, 1986, p. 391). The development of perceived self-efficacy allows for development of the subskills that are needed for accomplishing tasks. If an individual holds false beliefs, these may take hold of personal efficacy development and result in an inability to perform tasks, whereas perseverance at completing a new task develops subskills needed to develop personal self-efficacy (Bandura, 1986). Self-efficacy focuses on the cognitive beliefs an individual holds on what they are capable of doing, rather than what they actually know how to do to complete the task (Schunk, 2020). These beliefs are situation specific and focused on future task accomplishment (Greene, 2018). Furthermore, the perceptions that are developed about a

task will impact how an individual processes the possibility of success towards completing the task (Beswick, 2017). These beliefs and thoughts about one's skill set shape how tasks are accomplished. For example, cognitive beliefs impact goal setting as individuals with higher self-efficacy will be more likely to set higher goals (Maddux, 1995). The cognitions of these individuals develop a belief system that they can achieve greater tasks. Thus, when the belief exists that individuals have the power to achieve a task, individuals are more likely to attempt the task (Bandura, 1997). In addition to the belief that a task can be accomplished, individuals are also motivated by their belief in the effectiveness of the plan that will be employed to attain the task (Beswick, 2017). Beliefs can also be affected by an individual's psychological or emotional state, which impacts self-efficacy (Pandee et al., 2020). Self-efficacy impacts motivation and choice of activities, creating a cognitive impact on how knowledge is constructed (Bandura, 1997). The social cognitive theory laid the framework for Bandura to expand upon the development of self-efficacy beliefs.

### *Influences on the Development of Self-Efficacy Theory*

Self-efficacy theory grew of earlier influences from the behaviorist movement in the 1920s–1950s. Behavioral learning focused on the outcomes that could be reinforced and manipulated rather than studying the cognitive processes that were involved in human interactions (Greene, 2018). This perspective fell short in explaining the higher order problem solving and critical thinking skills involved with human interactions, leading to a shift in the 1950s to study social cognitive theory that aimed to explain how thinking was interwoven with feelings, behaviors, and environmental influences (Greene, 2018). Social cognitive theory is at work in schools daily as teachers make instructional decisions based on the information they process that impacts their feelings, behaviors, and environment. Self-efficacy is rooted in the

social cognitive theory which is focused on characteristics, behaviors, and environmental influences that lead to changes in behavior and efficacy (Greene, 2018). As cognitive behaviors are developed, shaping of self-efficacy occurs (Mehmood, 2019).

Additionally, cognitive processes rely upon motivation as the means to meeting expectations and outcomes. Through goal setting and self-evaluative reactions, individuals utilize motivation to achieve a desired outcome, and as the outcomes are met, the motivation and goals increase (Bandura, 1977a). This is further supported by the positive relationship between self-efficacy and motivation (Engin, 2020; Greene, 2018). Measuring motivational levels can be conducted through observing the amount of effort and persistence that is portrayed when an individual attempts to accomplish a task (Beswick, 2017). This motivation leads to a development of self-efficacy in individuals that can be reinforced by behaviors and environmental influences. Self-efficacy beliefs can be positive or negative, impacting the level of motivation to accomplish a task or outcome (Bandura, 2006). As cognitive thinking is processed, individuals determine the level of motivation present that will support goal completion, but this completion is also shaped by the confidence level in being able to attain the goal an individual is motivated towards.

Efficacy has impacts on a person's motivational level, emotional health, and performance (Bandura, 2006). Enactive, vicarious, and emotive modes of cognitive experiences develop self-efficacy levels (Bandura, 1977a, 1986). Efficacy levels are driven by degrees of motivation towards accomplishing goals (Greene, 2018). Highly motivated individuals will be more likely to meet task completion and reach goals, leading to increased levels of self-efficacy as a bi-product. Motivation is self-regulated as individuals make their own goals and decide how to pursue them. This self-regulation varies among people with some being able to more easily self-regulate than

others (Greene, 2018). Varying levels of self-regulation impact the ability to attain a goal, impacting perceived self-efficacy.

Additionally, one's feelings, experiences, and personal characteristics shape the development of efficacy. Recollections of distal experiences or present emotional states can impact how self-efficacy is developed to respond to a situation (Maddux, 1995). Verbal encouragement and opportunities for mastery experiences have been found to be contributors to the development of higher self-efficacy (Snyder & Fisk, 2016). The ability to react with high or low feelings and navigate those feelings appropriately can shape efficacy and, ultimately, the ability to accomplish a goal (Bandura, 2006). Thus, self-regulation and motivation levels are both influential factors in the development of self-efficacy. Self-efficacy can impact the choices and settings in which an individual becomes involved, leading to impacted performance (Bandura, 1977a). When considering impacts on performance, career self-efficacy has been found to influence a person's occupational development (O'Brien et al., 2019). The development of efficacy towards one's career impacts the level of performance and success within that career. For teaching, career efficacy would impact a teacher's belief system about their ability to succeed as an educator. The theoretical perspective of efficacy provides foundational understanding for the development of thinking that shapes how performance goals are met and the confidence behind meeting those goals, which can be aptly viewed through the lens of education when considering teacher efficacy.

### *Self-Efficacy Theory and Teachers*

Teaching is a profession that is driven by making a "positive difference" (Gallagher & Ciampa, 2020, p. 3) in the lives of children. This emotional drive to change the lives of students creates beliefs in teachers about their ability to impact change, thus impacting how teacher

efficacy is developed. A deeper understanding of how efficacy is shaped can impact teaching and learning. Teachers' self-efficacy is developed based on behaviors and school environmental factors that shape the confidence level of teachers for succeeding at their careers. These influences act as determinants in shaping efficacy development alongside a teacher's personal characteristics. However, teacher efficacy can change and be affected by various influencers (Pandee et al., 2020). Understanding how teachers develop their self-efficacy can help shape professional development and teacher training programs to ensure teachers achieve high levels of self-efficacy. Since individuals with high self-efficacy are more likely to be innovative and productive in their careers, it is essential that professional development targets indicators aimed at increasing self-efficacy (Bandura, 2006). Li et al. (2022) found that opportunities for collaboration and reflection positively impacted experienced teachers' self-efficacy levels. This understanding can be utilized by teacher training programs and school leadership as decisions are made by educational stakeholders. Differences arise from personal characteristics and environmental factors, so deeper study of teachers in public and private schools can deepen theoretical understanding of efficacy development. Through a comparison of Christian school and public school teacher efficacy, the knowledge base can delve more deeply and areas for growth and success within each subgroup can be better determined.

Theoretical understanding of efficacy can lead to growth in the system of education. Based on social cognitive theory, understanding the connection of human thought and its impacts on behavior can explain the connection between teacher thoughts and beliefs to the actions in their instruction that reveal levels of efficacy. The theory of self-efficacy guides knowledge construction through the many influencers that shape thinking and establish belief systems that determine an individual's likelihood to attain a goal or accomplish a task. The theoretical

underpinnings of efficacy reveal the cognitive processes that are shaped by internal and external factors and produce changes that impact teaching and learning and, thus, society overall.

## Related Literature

Based on the theoretical framework of Bandura's self-efficacy theory, the related research presents teacher efficacy findings and how efficacy levels impact overall job satisfaction and student achievement. Additionally, the independent variables of teacher efficacy with classroom management, instructional strategies, and student engagement are discussed. The literature presents general studies of teacher efficacy in both the public and private school sector while demonstrating a gap in the literature regarding a focus in comparative analyses of Christian and public school teacher efficacy. Through a presentation of teacher efficacy and its impacts, the review ends with a comparative view of public and Christian schools and the impacts those differences have made on teaching and learning.

### Teacher Efficacy

Teachers' self-efficacy is shaped by many environmental factors that can positively or negatively shape an outlook towards goal attainment (Zee et al., 2016). These environmental factors, such as school climate, mastery experiences, or background knowledge provide influences that bolster teacher confidence in being able or unable to attain a goal. School environments shape the development of teacher efficacy with instructional and technical support (Eisenberger et al., 2005). The school environments of public and Christian private schools can be very different based on curriculum, religious beliefs, and teacher expectations. As such, differences in self-efficacy among those two groups can be observed when considering the environmental influences present in each school type. These differences can be further analyzed by investigating the factors that impact teacher efficacy.

Teacher efficacy can be impacted by prior experiences, which vary based on training, schooling, and career opportunities. Research has shown that increased experiences with the subject matter result in higher levels of teacher self-efficacy (Dolighan & Owen, 2021; Holzberger et al., 2013; Lee & Tsai, 2010). Teachers who are more familiar with a content area due to years of experience, background knowledge, or prior experience will have increased levels of efficacy towards the ability to teach the content successfully. These experiences with the subject matter are supported by professional development opportunities and teacher training programs. Additionally, years of teaching experience shape perceived efficacy levels with many pre-service educators reporting lower levels of efficacy than experienced teachers (Wyatt, 2018). When comparing years of teaching experiences among private and public school teachers, a similar average of about 14 years of experience for each was reported by the National Center for Education Statistics (2020). This could suggest similarities in efficacy levels when considering how experience influences development. However, the years of experience need to be in the content being instructed as even veteran teachers reported low efficacy levels when considering teaching unfamiliar subjects, such as technology instruction (Lee & Tsai, 2010). Although experiential years may be similar for private and public school teachers, years of experiences can impact student achievement levels and thus shape teacher efficacy levels simultaneously. This demonstrates the need for continued education and professional development to broaden the knowledge base and continue to increase teacher efficacy.

Furthermore, effective educators were able to have greater confidence in their teaching abilities than those who were considered ineffective in their positions (Wyatt, 2018). Teacher evaluations can be used as a tool for increasing self-efficacy with modeling and coaching to build confidence and teacher strengths. When considering the value of teacher evaluations on

improving their practice for student success, 83% of private school teachers compared to 72% of public school teachers found evaluations to be beneficial (National Center for Education Statistics, 2020). Overall, the many contributing variables within school environments such as student demographics, classroom environment, and teacher personality and disposition impact the self-efficacy beliefs of teachers (Zee et al., 2016).

### *Facets of Measuring Teacher Efficacy*

Although teacher efficacy is impacted by many contributing variables, a more focused approach studies three facets that shape efficacy levels and impact teaching and learning. The TSES has been adapted to include the three domains of instructional strategies, student engagement, and classroom management (Zee et al., 2016). By integrating these three categories, efficacy around major components of teaching and learning can be better understood. Although efficacy levels of instructional strategies, student engagement, and classroom management can vary from one another, a teacher's lowered sense of efficacy in one area can counteract other areas of higher efficacy (Perera et al., 2019). As such, developing an understanding of each facet of teacher efficacy can support the development of increased efficacy levels overall. Instructional strategies focus on the best pedagogical practices that are implemented to ensure teaching and learning is effective. Efficacy with instructional strategies will result in better instructional delivery. Student engagement is dependent upon teacher instruction and delivery, so confidence in that delivery is needed to ensure engagement is occurring. Classroom management provides opportunities to build classroom climate and ensure all students are productive and on task during instruction; therefore, increased efficacy in this area will support the overall structure of a classroom's design and processes. Deeper analysis of each of these facets can better prepare

teachers and empower stakeholders to make educational decisions that will better support increased efficacy levels.

### *Instructional Strategies and Efficacy*

Effective implementation of instructional strategies is necessary for teaching to impact student learning positively (Almekhlafi et al., 2020). Instructional strategies are essential for student learning as they allow for effective delivery of instruction and communication with students (Stronge & Xu, 2016). There are many instructional strategies available, but not all have been found to be as effective for impacting student learning. The myriad of available instructional strategies can be implemented to deepen teaching and learning, yet selection of the appropriate strategy is dependent upon the subject area and grade level being taught (Stronge & Xu, 2016).

Research has shown that the following strategies are beneficial for increasing student learning and are employed by effective teachers: classroom discussion, concept attainment, concept mapping, cooperative learning, direct instruction, mastery learning, memorization and mnemonic instruction, inquiry-based learning, self-regulated learning, and meaningful feedback (Stronge & Xu, 2016). Although lengthy, this list is not exhaustive of all effective instructional strategies. Some of these instructional strategies are more innovative and based on educational reforms and the latest research. For example, best practices in math instruction have shifted towards instructional strategies that utilize higher order thinking, problem solving, and various perspectives. This reform-based math instruction has been more highly adopted by public schools than private schools (Lubienski et al., 2008). Additionally, successful implementation of instructional strategies is dependent upon effective professional development. Teachers in private and public schools reported being very adept (89%) at applying strategies learned in

professional development within their instruction (National Center for Education Statistics, 2020). This evidence would suggest that teachers feel prepared to implement new learning, but self-efficacy levels could impact this data. Overall, instructional strategies should be based on research and carefully selected to accomplish the intended instructional goal; in doing so they can be viewed as the "tools for success" for instruction (Volz et al., 2019, p. xi).

Instructional strategies are implemented to improve teaching and learning, but if self-efficacy beliefs hinder their implementation, the potential for positive impacts may go unnoticed. It was found that instructional strategies must be implemented with consideration to student learning needs and the learning environment (I. Thomas & Green, 2015). Teachers who are highly confident in their teaching abilities will be more likely to increase motivation and learning progress among their students (Veronika et al., 2018). This confidence can be bolstered through professional development, which has been found to have a positive relationship on instructional strategy implementation and student learning outcomes (Gul et al., 2021). Teachers who are provided with professional development that strengthens pedagogical practices will be better primed to impact student learning, thus increasing self-efficacy and student achievement levels. When considering using technology within instruction, it was found that teachers' self-efficacy beliefs impacted their ability to effectively implement instructional strategies with information and communication technology (Sangkawetai et al., 2020). Teachers' confidence levels can impact the instructional strategies being implemented that could be beneficial to increasing student achievement and positively impacting teaching development.

### *Student Engagement and Efficacy*

In addition to instructional strategies, student engagement is another facet of teacher efficacy that has a direct impact on the success of instruction and student learning. Student

engagement has been synthesized in the literature to focus on "student motivation, transactions between teachers and students, institutional support, and engagement for active citizenship" (Zepke & Leach, 2010, p. 167). It can be measured by "the level of student attention, interest, and emotional investment during instruction" (Volz et al., 2019, p. 35). Assessing these three factors is an on-going reflective process by teachers that spurs instructional changes and differentiates delivery of instructional strategies. Through the building of student–teacher relationships and connecting academic content to students' personal interests and goals, teachers can provide the framework for students to be engaged (Volz et al., 2019). Teacher–student relationships can be impacted by the amount of students a teacher is teaching. In private schools, the average elementary classroom holds 17 students, compared to 21 in public schools (National Center for Education Statistics, 2020). The propensity to have smaller class sizes in Christian schools could impact how relationships are built and attention is given, thus impacting student engagement and teacher self-efficacy. Research has also shown that engagement allows for greater academic success among students (Finn & Rock, 1997; Volz et al., 2019). Additionally, engaged students are less likely to drop out and develop persistence when dealing with academic struggles (Volz et al., 2019). These factors are shaped by the educator's instructional scaffolds that support student engagement.

Despite these positive attributes and the understanding that many teachers have regarding student engagement strategies, many teachers do not integrate these findings in their teaching and learning practices (Goldspink et al., 2008). Engagement can be impacted by internal factors that are based at the student level or be externally impacted by the teacher's influences on the student (Lu & Mustafa, 2021). For example, the external factor of a classroom environment that supports student engagement will spur engaging behaviors among students as they mimic other

students who are engaged (Greene, 2018). As such, teacher efficacy regarding the ability to maintain student engagement is based on the external factors of the learning environment that is designed by the teacher. Additionally, research has shown that teachers with higher efficacy levels will be more likely to persevere and put forth greater effort, which can be motivating for students through challenging activities (Bruce et al., 2010). Teachers that embraced culturally responsive teaching practices show positive relationships between teacher efficacy and student engagement (Callaway, 2017). Public school teachers may have more opportunities for this as public schools have greater minority enrollment than private schools (National Center for Education Statistics, 2019). Student engagement can be impacted from an emotional, behavioral, and cognitive perspective with different pedagogical strategies to effectively impact each facet (Pedler et al., 2020). Teacher efficacy is shaped by a teacher's confidence in their ability to enact change, so the pedagogical strategies that are enacted to influence each facet of student engagement must be considered in relation to teacher efficacy levels.

### *Classroom Management and Efficacy*

Contrary to the facets of instructional strategies and engagement that are more student or teacher focused, classroom management is more attuned to the overall classroom environment that is created to support learning. Classroom management encompasses the instructional structures and processes established by teachers. These structures and processes allow for the most impactful educational environment where teacher–student relationships and student characteristics are viewed as contributors to the support of classroom management (Evertson & Weinstein, 2006). Therefore, effective classroom management is critical to student achievement and teacher effectiveness. Implementation of classroom management systems provides students with norms to structure classroom routines, develop social–emotional components, and provide

clarity and consistency of expectations (Volz et al., 2019). Classroom management is essential for deterring negative school behaviors, such as gang involvement, bullying, or hate speech, which have been reported to occur in greater numbers in public schools than private schools (National Center for Education Statistics, 2019). Through teacher scaffolding, student feedback, and promoting participation, classroom management systems create conducive learning environments for students that foster learning. Additionally, effective classroom management structures will lead students to become intrinsically motivated and increase student ownership in self-discipline rather than relying on the teacher to establish all rules and procedures (Volz et al., 2019). The creation of this type of environment is highly dependent upon the teacher's confidence and experience levels with structuring a conducive management system.

Research has shown a positive correlation between teachers' self-efficacy and classroom management skills (Agbaria, 2021). Teachers who are confident in their teaching abilities can scaffold instruction through the creation of positive classroom environments and structures that support learning. Highly efficacious teachers can provide environments that foster student learning with clear expectations and structures (Eisenberger et al., 2005). This is furthered with the potential impacts that classroom management efficacy can have on cognitive activation and clarity of instruction (Chen et al., 2020). When classroom management is structured by highly efficacious teachers, instructional content can be demonstrated with clarity, and student thinking can be primed.

Teacher efficacy can influence how a teacher views their strengths, impacting their organization and behaviors that affect classroom management (Evertson & Weinstein, 2006). A strengths-based perspective can allow for educators to be more confident in their abilities to manage a classroom with organizational structures and strategies for promoting positive student

behaviors. As Christian school teachers are impacted by their religious ideals which shape self-beliefs (Nie, 2019), their development of strengths may be grounded in those beliefs, further impacting self-efficacy. This strengths-based perspective results in teachers with high self-efficacy creating more effective strategies and rules for managing student behaviors (Zee & Koomen, 2016).

Additionally, this positive relationship also reveals that teachers with high levels of efficacy for classroom management experience less job burnout (Aloe et al., 2014; Cooper, 2019). Since retaining teachers is critical for building a school and promoting growth, job burnout is a factor to be highly considered. Job burnout has been a substantial concern for teachers as their jobs are emotionally taxing and require extensive planning and differentiation to meet the needs of the whole child (Shakeel et al., 2021). Furthermore, a study of kindergarten teachers in Jordan found that job burnout occurred more with private school teachers who had more tasks assigned than public school teachers (Al-Adwan & Al-Khayat, 2017). These data could be dependent on cultural differences as public school teachers in America tend to have more responsibilities and less autonomy than private school teachers. Developing stronger efficacy can help prevent burnout as those with higher expectations for efficacy have been found to "persist in the face of obstacles and aversive experiences" (Bandura, 1977b, p. 80).

The development of the skill set for structuring classroom management can be the factor that helps teachers effectively teach or become a barrier that results in teachers leaving their careers (Cooper, 2019). Furthermore, Bulut and Topdemir (2018) found that teachers' efficacy with classroom management increased with years of teaching experience with lower classroom populations. These factors contribute to how classrooms need to be managed and should be considered by educational stakeholders for impacting student learning and creating a conducive

learning environment. Classroom management has been associated with student learning and building trust between teachers and students (Akman, 2020), so developing a deeper understanding of how efficacy impacts the development of classroom management can allow for leveraging of direct impacts that better student learning and impact student achievement.

### *Student Achievement*

Instructional strategies, student engagement, and classroom management all have an impact on student academic achievement. Student academic achievement is generally measured through informal and formal assessments that are compared to a growth measure such as standards, skills, or learning goals. A variety of goals can be the driving force for student achievement and be shaped by intrinsic and extrinsic motivation through the classroom environment created by the teacher. Student achievement is attained through demonstration of knowledge on standardized tests, but students may also experience the benefit the new knowledge can add to their lives (Byrnes, 2021). This type of achievement is significant as it allows for students to own the learning process and ensure learning is long lasting. Furthermore, student achievement provides an evidence of student learning and reveals the effectiveness of instruction.

Developing an understanding of the relationship between student achievement and teacher efficacy is essential for ensuring effective student performance. A significant difference has been found between teacher efficacy and academic achievement (Engin, 2020; Holzberger et al., 2013; Zee & Koomen, 2016). Higher levels of teacher efficacy produce higher student achievements where students have increased knowledge acquisition that can be demonstrated. Teachers who believe they can impact instruction successfully will implement high yield instructional strategies that result in greater student achievement (Hattie & Anderman, 2019).

Integrating high yield strategies may require more confidence in teaching abilities, thus furthering the relationship between teacher efficacy and impacts on student achievement. Additionally, teachers with higher levels of motivation create environments that support increased student achievement. These environments can be attributed to increased teacher planning, which allows for a thorough implementation of effective instructional practices (Engin, 2020). Engin (2020) further concluded that teachers with higher motivation also had increased levels of self-efficacy. This positive relationship between motivation and self-efficacy can be a significant contributor to student achievement in classrooms where teachers are both motivated and highly efficacious.

Furthermore, Romel et al. (2021) found that teachers with high levels of efficacy were more likely to employ higher pedagogical practices. Higher pedagogical practices support the increased student academic achievement through instructional practices and strategies. As such, consideration should be given to strategies for increasing teacher self-efficacy to best support quality instruction (Romel et al., 2021). This can be particularly beneficial to private schools that may be less likely to embrace innovative reform-based instructional strategies compared to their public school counterparts (Lubienski et al., 2008). Teachers with higher self-efficacy were also more likely to believe that they could teach all students and less likely to ascribe to the belief that some students could not learn (Prewett & Whitney, 2021). These positive beliefs create an environment where student achievement can thrive, and students are supported by the teacher to achieve academically. Since teacher efficacy has been shown to directly impact student achievement levels, school leaders should encourage practices that develop increased efficacy levels among educators. This can be instituted with professional development that is targeted with coaching support and opportunities for reflection that focus on building mastery experiences

(Thornton et al., 2020). Examples of targeted professional development can focus on strategies for building classroom community and developing of rituals and routines or classroom norms that facilitate student ownership and motivation building. By providing opportunities like these for teachers to build their efficacy levels, student academic achievement can be directly impacted and teacher confidence in their instructional abilities can be simultaneously bolstered.

Although research has shown that high teacher efficacy can positively impact student achievement, teachers with low self-efficacy can negatively impact student academic achievement. These negative impacts can be mitigated with positive parental influences and parenting styles that can counteract low teacher efficacy for students and increase academic achievement (Engin, 2020). Since, parental involvement is more prevalent in private schools, there is a greater probability that this offset will occur there than in public schools (Swaner & Lee, 2020). This evidence illustrates another variable that can affect the impact of teacher efficacy on student learning. Additionally, studying the more detailed demographics that can impact teacher efficacy can present a clearer view of the overall impact on student achievement. For example, it has been shown that a positive relationship exists between teacher efficacy and student achievement, but most studies have utilized cross-sectional data pulls, whereas a longitudinal study showed that the relationship has a small effect size. Additionally, when evaluating teachers with less than 11 years of teaching experience, there was no significant difference in the relationship (Kyung & Eun, 2018). This could be attributed to less experienced teachers still acquiring development in the areas of instructional strategies, classroom management, and student engagement. Low self-efficacy can create negative relationships for student learning, but impacts may occur outside of academics as well.

Teacher efficacy levels may have greater impacts on other student factors outside of academic achievement, such as motivation levels (Zee & Koomen, 2016). This perspective is worth noting for developing a student's success overall. Furthermore, student ages should also be considered when analyzing teacher efficacy impacts on academic achievement. For instance, Zee and Koomen (2016) found that elementary teacher efficacy levels had a greater impact on student achievement than their secondary counterparts. The researchers noted that the mastery experiences of elementary teachers could more significantly influence elementary teachers than secondary teachers. These alternative perspectives of student achievement and teacher efficacy provided a deeper analysis for understanding the extent that teachers' efficacy levels can have on influencing the educational progress of students. An analysis of teacher self-efficacy can produce analyzable links to student academic achievement that present opportunities for further study and consideration by educational stakeholders, especially when considering methods to target struggling students and increase achievement levels.

### *Narrowing the Achievement Gap*

The 21st century achievement gap is characterized by the growing divide of academic achievement among students of various ethnicities and socioeconomic backgrounds (Hanson et al., 2020). Hanson et al.'s (2020) report found that despite educational interventions, mandates, and initiatives, the achievement gap has persisted for three decades across America. This gap has resulted in decreased student academic achievement levels among minority students and those from lower socioeconomic communities. Public schools have greater numbers of students living below the poverty threshold (National Center for Education Statistics, 2019), so this achievement gap can be more noticeable in public schools than in private schools. Efforts to close or narrow the achievement gap have focused on developing teacher effectiveness. Quality of instruction is a

major component to ensuring student learning gains are made in classrooms. Almekhlafi et al. (2020) discussed how instructional strategies must be implemented well to create positive impacts on student learning. As research has shown, teachers with greater self-efficacy are more likely to employ pedagogical strategies that will support student learning (Romel et al., 2021). Thus, development of increased levels of teacher efficacy can support the narrowing of the achievement gap for students of color and economically disadvantaged communities. Additionally, teachers with high self-efficacy are more likely to ascribe to the belief that all students can learn and possess a confidence in their ability to teach all students (Prewett & Whitney, 2021). This positive self-belief is essential when targeting low achieving students and supporting their academic growth. Furthermore, as classrooms are comprised of a diverse group of students, teachers with a strong level of cultural teaching efficacy can create an environment where learning is student centered and the decisions that are made are for the best benefits of the students (Callaway, 2017). These instructional strategies provide a framework using teacher efficacy development as a tool to narrow the achievement gap. The development of increased teacher efficacy can support the narrowing of the achievement gap through improving quality of instruction and teacher beliefs to best meet the needs of students who are not succeeding academically. This increase in teacher efficacy can be supported by multiple variables that contribute to efficacy growth.

**Growing Teacher Efficacy**

Teacher efficacy levels greatly impact the quality of instruction and the level of academic achievement that is provided for students (Engin, 2020; Holzberger et al., 2013; Romel et al., 2021; Zee & Koomen, 2016). An analysis of the factors impacting teacher efficacy growth can provide educational stakeholders with the framework for developing efficacy levels. Bandura

(1977b) outlined factors that impact the development of self-efficacy expectations through the sources of performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. Each of these factors influences how efficacy levels are shaped towards mastery of an expectation or task.

### *Performance Accomplishments*

Performance accomplishments are the most influential on self-efficacy growth as they are attributed to personal experiences (Bandura, 1977b). Personal experiences that result in success will strengthen efficacy levels, especially if these successes are further attained after overcoming failure (Bandura, 1977b). For teachers, successful past experiences in the classroom when dealing with classroom management, instructional practices, and collaborating with parents and peer teachers become the source of self-efficacy conceptions (Skaalvik & Skaalvik, 2019). These past experiences shape teachers' mindset for their future beliefs about their teaching abilities. A study of pre-service educators found that mastery experiences were critical for applying the knowledge acquired through university courses and preparing teachers with the skill set to manage a classroom independently (El-Abd & Chaaban, 2021). Mastery of a task can also be strengthened through performance incentives. Incentives that focus on developing a skill set and increasing knowledge create scenarios where individuals are more likely to remain interested in the task and increase self-efficacy (Bandura, 1986). In this way, teacher efficacy levels can be impacted through incentives that build the potential for more positive and successful performance accomplishments within the classroom. These incentives can be in the form of new and deeper learning through professional development or opportunities that allow for self-reflection of taught lessons that allow for teachers to leverage their strengths and identify areas to overcome, thus increasing self-efficacy towards future teaching opportunities. As the majority of

both public and private school teachers reported attending professional development (National Center for Education Statistics, 2020), this could be an incentive to leverage for increasing self-efficacy. Additionally, performance accomplishments for teachers can be impacted by the school environment as job satisfaction and resources available can impact the success of experiences, influencing the development of self-efficacy levels (Skaalvik & Skaalvik, 2019). Through performance accomplishments, teacher efficacy levels can be shaped and beliefs towards future abilities are constructed.

### *Vicarious Experience*

In addition to personal experiences and interactions that lead to efficacy growth, vicarious experiences allow for growth through observational learning. Vicarious experiences are described as those that are learned through observations of others being successful at accomplishing a task (Bandura, 1977b). These experiences are based in persuasive skills where observers are led to believe that since a similar person was able to attain mastery, they too will be able to accomplish the goal or task (Bandura, 1977b; Pandee et al., 2020). In education, observations of other teachers provide opportunities for learning and reflection. El-Abd and Chaaban (2021) found that when pre-service educators observed classroom teachers, the prospective teachers were able to take away lessons they could apply themselves, but also reflect on opportunities for improvement to impact their future classrooms. Observational learning can also provide opportunities for modeling of experiences, which can cause increased motivation towards accomplishing the task (Lee, 2020). Models provide development of problem-solving systems and can provide motivation for shaping behaviors (Shipherd, 2019). For educators, modeling of effective instruction can be a catalyst for changing one's own pedagogical practices and increasing self-efficacy towards teaching abilities. Through vicarious experiences, lessons

can be learned and new knowledge acquired that can impact the confidence an individual has in their ability to accomplish a task effectively.

### *Verbal Persuasion*

Performance accomplishment and vicarious experiences focus on the actions taken by the individual towards efficacy growth, whereas verbal persuasion is grounded in the feedback given by others to the individual. A frequently used strategy for increasing self-efficacy is verbal persuasion due to its simplicity and easy access. Verbal persuasion uses oral affirmations to persuade an individual that they can complete a task that they may believe they are not capable of accomplishing (Bandura, 1977b). This persuasion can stem from those in the individual's social environment such as family, friends, and colleagues (Arslan, 2019). When studying the effect of verbal persuasion on prospective teachers, Arslan (2019) found that encouraging words about teaching abilities from professors, classmates, mentor teachers, and family increased teacher self-efficacy. Christian private schools provide opportunities for teachers to share their spiritual beliefs and pray for each other, providing an additional method of encouragement that may not be possible in public school settings. As such, school leaders and colleagues should be cognizant of the vernacular used with teachers that can support an increase in self-efficacy. The naturally occurring social environment of schools impacts teacher efficacy development as teachers work in teams and collaborate with other teachers, but most teaching occurs in isolation with the teacher and students, deeming the development of independent levels of self-efficacy to be the greatest influencers on teaching (Skaalvik & Skaalvik, 2019). Furthermore, Bandura (1977b) posited that due to the lack of authentic mastery experiences, verbal persuasion provides weak and temporary impacts on efficacy development. Thus, implementation of verbal

persuasion can be utilized as a catalyst for building and developing self-confidence but must be supported with practical experiences to induce longer-lasting changes in teacher efficacy levels.

### *Emotional Arousal*

To create a well-rounded perspective of efficacy growth, emotions must also be considered as they shape cognitive process and behavior. Emotional arousal is characterized by the emotions that impact efficacy levels, especially in threatening environments (Bandura, 1977a, 1977b). High emotions resulting from anxiety or stressful interactions can hinder performance, thus lessening self-efficacy and the ability to accomplish tasks (Bandura, 1977b). Thus, self-efficacy can be impacted based on the influences of emotions in more volatile situations. By impacting a person's cognitive thought processes, self-efficacy levels can also impact how emotions are perceived in situations (Shipherd, 2019). Emotions can cause physiological effects, such as shaking, visual agitation, or tenseness, which prevent an individual from successfully completing a task or goal (Bandura, 1977b). Emotions can greatly impact the attitudes teachers have about their careers, greatly impacting their self-efficacy (Arslan, 2019). These attitudes then impact the quality of instruction that is delivered, impacting teaching and learning (Arslan, 2019).

Additionally, self-efficacy levels also impact emotions and motivation (Skaalvik & Skaalvik, 2019). Thus, a teacher's efficacy levels can impact how their emotions and motivation towards teaching are shaped and developed. In prospective teachers, it was found that emotional states were large sources of teachers' attitudes and self-efficacy towards teaching (Arslan, 2019). Arslan (2019) further discussed how teacher training programs should not only focus on imparting pedagogical knowledge but also focus on the affective nature of teaching, and the benefits it has to the community as a means for increasing prospective teacher self-efficacy and

fostering positive emotional connections with the profession. Within Christian schools this could be incorporated by their preexisting practices of prayer and Bible study time, whereas public schools could find value with integration through social–emotional components. Furthermore, mastery experiences during teaching can also impact emotions (Skaalvik & Skaalvik, 2019). This demonstrates how multiple factors are at play in the growth of efficacy levels in teachers. Therefore, consideration of all influences on efficacy levels should be considered when analyzing self-efficacy development and growth.

**Teacher Efficacy and Demographic Determinants**

Although external factors such as observational learning and experiences shape teacher efficacy, internal factors should also be considered when understanding impacts on efficacy levels. As public and Christian private schools are comprised of diverse staff with varying background and personal belief systems, these factors shape teacher efficacy. Teacher efficacy is shaped by varying internal factors, such as age, gender, or experience. Differences that are found in these demographic areas reveal relationships between efficacy levels and their influencers. Since “thoughts are partly governed by external stimuli” (Bandura, 1977b, p. 188), considering the environmental influences surrounding teachers can provide a better understanding for teacher efficacy development. External stimuli that shape teacher efficacy such as job satisfaction and school demographics will ultimately impact instruction and a school’s culture. Developing an understanding of these relationships can provide knowledge that can be used to better teaching and learning and increase opportunities for students and teachers to succeed. Studies have demonstrated the relationships between sources of building self-efficacy and their impacts on teaching and learning environments (Dolighan & Owen, 2021; Engin, 2020; Kasalak & Dagyar, 2020; Moosa & Shareefa, 2019).

### *Job Satisfaction*

Job satisfaction for teachers is crucial for teacher retention and developing highly effective educators that impact academic achievement. Findings show that job satisfaction is greater with increased levels of efficacy (Kasalak & Dagyar, 2020; Zee & Koomen, 2016). Teacher work engagement also positively correlates with teacher self-efficacy (Li et al., 2022). Higher self-efficacy is usually indicative of teachers who are innovative, which leads to increased job satisfaction (Dogan et al., 2019). This increased level of efficacy is also related to increased job performance and higher goal setting (Jiao et al., 2021). Increased job satisfaction should spur educational stakeholders to focus on increasing teacher efficacy as a leverage for improving job satisfaction as well (Kasalak & Dagyar, 2020). Self-efficacy can be based on external factors beyond the locus of the teacher's control (Tschannen-Moran et al., 1998), so job satisfaction can alter the efficacy ratings in the TSES, either positively or negatively, depending on those external influences. Confidence in one's ability to achieve teaching tasks may not necessarily be indicative of short-term changes in job satisfaction, as other external variables can be influencing changes in satisfaction (Granziera & Perera, 2019). Furthermore, developing a trusting relationship between school leaders and teachers can help strengthen teacher self-efficacy (Bukko et al., 2021). This trust can be developed through encouragement, as Snyder and Fisk (2016) found that verbal encouragement was a strong facilitator of developing high teacher efficacy. A trusting relationship can provide a better framework for increasing job satisfaction as teachers build confidence in their abilities to effectively instruct. To retain highly effective teachers, addressing the positive relationship between job satisfaction and teacher efficacy is beneficial for school leadership.

### *Teacher Qualifications*

It is often thought that teachers with higher degrees and certifications are more effective at increasing student achievement. Despite this widespread thinking among the field of education, when considering teacher efficacy, there is no significant difference between increased qualifications and self-efficacy (Dolighan & Owen, 2021; Moosa & Shareefa, 2019). As self-efficacy is focused on a person's own beliefs towards an outcome, it does not necessarily theorize that greater qualifications will lead to increased efficacy (Bandura, 1977a). This is applicable in a private school setting, where less teachers tend to be certified when compared to public schools (Lubienski et al., 2008; Shakeel et al., 2021). In pre-service educators, efficacy ratings were higher at the beginning of program study than towards the completion of the program, suggesting efficacy expectations can change over time based on reality and learned experiences (Pendergast et al., 2011). Thus, as pre-service educators became more qualified to teach, their efficacy levels lowered. This negative relationship is contrary to widespread thinking but still aligned with the premises of self-efficacy theory. Through a deeper analysis and understanding of the relationship between teacher efficacy and teacher qualifications, strides can be made for leveraging other factors that have greater effect sizes on the levels of self-efficacy.

### *Gender, Age, and Culture*

Schools are composed of teachers from a diverse population of gender, age, cultures, and experiential backgrounds. These various demographics among teachers can be explored to determine their impact on teacher efficacy. Research conducted with teachers in Iran revealed no significant difference in teacher efficacy when comparing age, gender, or experience (Rezaeian & Abdollahzadeh, 2020). These findings comparing gender contrast to what has been discovered in other studies, however. Multiple studies have found teacher efficacy to be higher among

females than males (Greenwood et al., 1990; Lee et al., 1992, as cited in Rezaeian & Abdollahzadeh, 2020; Raudenbush et al., 1992). More specifically, Romel et al. (2021) found that females reported higher levels of self-efficacy when considering efficacy towards parental involvement and building a positive school climate, whereas Ross et al. (1996) reported males having greater teacher efficacy in work preparedness. Considering these findings, it has been proposed that self-efficacy may be shaped more greatly by personality traits than demographic differences (Rezaeian & Abdollahzadeh, 2020).

Self-efficacy can be impacted by varying personality characteristics and experiences, more so than solely relying on the impact of physical traits. For example, when comparing the differences in age and teacher efficacy levels, the findings were mixed. Some studies found that younger teachers had increased self-efficacy (Smits & Bosscher 1998, as cited in Rezaeian & Abdollahzadeh, 2020), whereas Lesha (2017) found that as age increased, so did efficacy levels. The average age of teachers was 43 and 44 years for public and private school, respectively (National Center for Education Statistics, 2020). Despite this, other findings reported that age showed no significant difference with personal efficacy (Penrose et al., 2007). This aligns with Bandura (1994), who stated that age and self-efficacy had no set relationship, as efficacy can change over a person's lifetime. Furthermore, supporting this, Tschannen-Moran and Woolfolk Hoy (2007) found that when surveying novice teachers, age did not result in a significant difference for sense of self-efficacy. The ages of teachers that make up a school can be very diverse, ranging from a younger population who may be recent graduates to those nearing retirement, so understanding the lack of relationship between age and efficacy can be beneficial when staffing schools and developing professional development.

Additionally, classrooms are composed of a diverse group of students with many cultural backgrounds. Teachers who perceive themselves with the ability to meet the diverse needs of their students and succeed in that perception develop greater self-efficacy (Gallagher & Ciampa, 2020). To effectively reach all students, teachers must be cognizant of best practices for cultural teaching. Teachers with high cultural efficacy are better able to support diverse learners as they build new knowledge (Ladson-Billings, 2009; Villegas & Lucas, 2002). Additionally, research has proposed that Western cultures that are more independent-driven view self-efficacy as more motivating than non-Western cultures that value collective efficacy and collaboration with others (Klassen, 2004; Triandis, 1996). Demographic factors have a varying impact on teacher efficacy, but consideration of each factor allows for a deeper understanding of efficacy development.

**Elementary and Secondary School Teacher Efficacy**

Elementary and secondary school teachers are each faced with different challenges and opportunities based upon the demographics of school environments and child development of the students being instructed. Whereas elementary teachers generally teach more content areas to the same group of children throughout the year, secondary teachers are often specialized in one content area and teach many different groups of students throughout the year. Additionally, elementary students are younger in age, typically between the ages of 5 and 12, compared with 12–18 year olds in secondary schools. The many differences between elementary and secondary schools have been shown to carry over to teacher efficacy level differences as well. Research has shown that elementary teachers report higher levels of self-efficacy when compared with secondary teachers (Fuller & Izu, 1986; Lee et al., 2013). Lee et al. (2013) also indicated that elementary teachers had higher self-efficacy in the areas of classroom management and student engagement, which resonated with qualitative responses made in the study by secondary teachers

expressing their frustrations with classroom management. When comparing middle school and elementary teachers, it was found that elementary teachers reported higher self-efficacy levels (Wolters & Daugherty, 2007). Contrary to these findings, however, Raudenbush et al. (1992) reported that teachers had higher self-efficacy levels when teaching older high school students than when teaching younger high school students. This research suggested that older students were easier to engage, thus increasing teacher efficacy. However, Wolters and Daugherty (2007) found that these differences were influenced by sample size. The content being taught also affects levels of efficacy among grade levels taught. Schwarzhaupt et al. (2021) found that computer science teachers in middle and high schools reported higher efficacy levels than their elementary counterparts. More specifically, when considering pre-service educators in elementary and secondary inclusion settings, Specht and Metsala (2018) found that greater efficacy was reported when greater experiences with exceptional students were provided. Consideration of the impacts that teaching different age groups of children can have on teacher efficacy is needed to deepen the understanding about the factors that can shape efficacy development at both the elementary and secondary school levels.

**Public School Influences on Teacher Efficacy**

Most studies focused on teacher efficacy have been conducted in public school settings. Public school teachers are faced with a diverse array of student learning needs and mandated state and district initiatives that are evaluated on a yearly basis. Depending on the school climate that is established, burnout can occur leading to low perceived self-efficacy (Shakeel et al., 2021). Many public school settings are faced with challenges of limited budgets, low levels of family and community engagement, limited resources, or behavior management concerns. These challenges create an ideal climate for lowered teacher efficacy. These environments foster

teacher burnout and diminish confidence in the ability to positively impact larger scale issues within school systems. Conversely, schools that focus on meeting teachers' professional needs and fostering positive learning environments bolster teacher efficacy (Shakeel et al., 2021). These schools create environments that prevent teacher burnout and ensure that confidence in teaching abilities can flourish. Leadership distribution within the school is also a factor for determining self-efficacy. Schools with distributed leadership resulted in higher levels of teacher self-efficacy (Engin, 2020). Although most public schools operate from a top-down leadership style, leadership distribution will vary from school to school but should be considered when evaluating teacher efficacy. Ideally, environments that foster positive school climates and distributed leadership can be models for fostering high teacher efficacy. Public school districts are so varied that an array of these environments can be found throughout the nation. Understanding the underlying factors that contribute to teacher efficacy and the complex structures and requirements within public schools can better assess the levels of public school teacher efficacy and adjustments needed to improve efficacy levels among teachers.

**A Historical Overview of Christian Private Schools**

Christian private schools in America were founded out of a need to integrate faith-based academic learning in an educational system that was becoming increasingly secular. The Christian School Movement was a response to the removal of Christian beliefs from public school classrooms in the latter half of the 20th century (Newell, 2019). American schools were founded on Christian principles with the Puritans and early colonizers of the nation infusing their beliefs with academic instruction (Smith, 2020). Despite this early foundation, scientific advancements and theory began to lead to a dissociation of Christian beliefs within America's schools. The National Evangelical Association began discussions in the 1940s with the aim to

solicit feedback of what Christian education should consist of within schools. This feedback led to the creation of the National Association of Christian Schools, which realized church school instruction and public education were not enough for teaching faith-based curriculum (Slater, 2019). As such, Christian schools today are tasked with meeting the academic needs of students while simultaneously fostering biblical knowledge and spiritual growth. Christian schools have navigated the political and societal pressures and influences for decades but have continued to focus on their values and beliefs throughout their greater communities (Slater, 2019).

**Christian Private School Influences on Teacher Efficacy**

Christian schools are privately funded and do not necessarily follow the same structures and requirements of public schools that are governmentally funded. This autonomy presents a varied school climate that contrasts in student demographics and academic initiatives from public schools. Traditionally, Christian schools are smaller than public schools and have a greater representation of parental involvement, which are factors that positively influence school climate (Lubienski et al., 2008; Swaner & Lee, 2020). This positive development of school climate results in higher teacher efficacy (Shakeel et al., 2021). Conversely, Christian private schools tend to employ greater numbers of uncertified teachers than public schools (Shakeel et al., 2021). Although increased teacher qualifications support greater student achievement, as mentioned earlier, qualifications do not impact teacher perceived self-efficacy (Dolighan & Owen, 2021; Moosa & Shareefa, 2019). The autonomous and more engaged climate of private schools can have a significant impact on the development of efficacy among Christian school teachers.

Additionally, Christian private schools are predominately led by teachers who are professing Christians, as this is often a requirement for employment. Consideration of the impact that religious beliefs have on self-efficacy development can provide a unique perspective when

compared to public schools. Unfortunately, there is limited research on the impact of religious beliefs on self-efficacy, and research that has been conducted has utilized small sample sizes, making the results less applicable to larger populations. Research has shown that religious beliefs influence the development of how one perceives the ability to influence change around them (Nie, 2019). Nie's (2019) study discussed how the beliefs of conservative Protestant Christians impacted their efficacy development. These Christians held beliefs that God was in control of all things, including efficacy, so it was viewed that humans had little to do with enacting change, whereas a reliance on God as the controller of all things was greater (Nie, 2019). Furthermore, the study found that an area with predominately Protestant individuals reported lower self-efficacy than an area with more Catholic influences. Conversely, a study of Mennonite teachers in Christian schools found that teacher efficacy related to integrating faith was high, revealing that faith can impact levels of efficacy dependent upon what attribute is being considered (Wiens et al., 2022). The faith-based principles and unique structures present in Christian schools can have a significant impact on teacher development.

### *Professional Ideals of Teachers in Christian Schools*

A crucial difference between public and private schools is the ability to teach religious beliefs in Christian private schools. In Christian schools, biblical instruction is a large component of curricular focus and daily instruction. Christian educators have the potential to impact students vicariously through the modeling of a Christian lifestyle as students learn through observations (Lee, 2020). Despite this potential for observational learning and Christian schools' focus on faith integration within academic instruction, it was found that Christian school teachers formed connections between their faith and the ideals they wanted to practice as they taught, but they did not necessarily make those connections to academic connections or curricular choices (Boele-de

Bruin & De Muynck, 2018). Thus, belief systems were at play in classrooms, but oftentimes, the academic instruction was not rooted in those faith ideals. Understanding this lack of connection is key to noting the previously mentioned lack of statistical difference between public and private school teachers' self-efficacy (Boateng & Sekyere, 2018). The focus of Christian beliefs that teachers held was not conveyed largely within the cognitive processes of academic instruction (Boateng & Sekyere, 2018). The environment in which teachers instruct can be a significant contributor to how their professional ideals are shaped, consequently, impacting their perceived self-efficacy.

**Public and Christian School Differences Compared**

It is well-known that educational differences exist when comparing publicly funded and privately funded schools. The differences in curriculum, classroom environments, and demographics impact the instruction of educators in each type of school. Public school and private school teachers have many similar responsibilities, such as organizing and planning instruction, but it was found that private school teachers also require a unique skill set not needed in public school environments (McShane, 2019). Since the majority of private schools are religious in nature, those teachers had to acquire skills and lead in faith-based instruction. Additionally, private school teachers are more likely to need skills in accounting and marketing to address tuition needs of students and recruit prospective families (McShane, 2019). When comparing the self-efficacy of public and Christian private school teachers, these variables are important as private schools tend to have more interactions with families and access to more curricular resources (Boateng & Sekyere, 2018). Despite access to these resources, Boateng and Sekyere (2018) found no evidence of a difference between teacher self-efficacy regarding student engagement in public and private schools. Instead, more differences were found in

efficacy levels due to teacher experiences as mastery experience learning was occurring (Boateng & Sekyere, 2018; Mehmood, 2019). Through mastery experiences, teacher confidence increases due to having prior successes with the current outcomes and goals (Mehmood, 2019). These external and internal factors in place at schools can be regarded as contributing factors to the perceived efficacy of teachers in both private and public schools (Tschannen-Moran et al., 1998).

## Summary

Teacher efficacy is tied with teacher instructional performance and student academic achievement (Tschannen-Moran et al., 1998). The theoretical framework of self-efficacy forms the basis for teachers' self-efficacy that impacts the level of job satisfaction among the teaching force. Utilizing efficacy scale ratings to determine factors that contribute to high or low teacher efficacy has garnered much emphasis in the research of this topic (Tschannen-Moran et al., 1998; Zee et al., 2016). As a result of this emphasis, the direct impact on student achievement has been discussed based on teacher qualifications and differentiation of instruction (Dolighan & Owen, 2021; Moosa & Shareefa, 2019). Research has shown that teachers with high levels of efficacy create learning environments where students performed better academically (Zee et al., 2016). These teachers were more likely to create productive learning environments that push students to think more critically and increase their academic achievement. In Christian private schools, teacher instructional beliefs are tied to faith and values (Boateng & Sekyere, 2018), at times, resulting in less emphasis on academic achievement in favor of faith development. This contrasting belief between public and Christian private school teachers reveals a gap in the literature addressing the comparative study of efficacy development of teachers in Christian and public school settings.

Although most studies of teacher efficacy have been focused on public school educators, further study regarding Christian school educators can provide foundational knowledge to improve instruction in schools aimed at making disciples and future Christian workers. As families seek Christian education as an alternative to secular education, it is essential to better understand teacher efficacy levels among Christian school educators to ensure those families receive high quality education that is on par, if not better, than public education. The analysis of Christian and public school teachers' self-efficacy can reveal additional literature to support school improvement and garner support from educational stakeholders. Additionally, studying the efficacy development of teachers in public and Christian private schools allows for best pedagogical strategies to be implemented and developed and for factors impacting efficacy levels to be discussed. Since both Christian private and public schools aim to bolster teacher effectiveness and increase student academic achievement, deeper understanding of the development of teacher efficacy can support those goals. Though many variables are contributing to the development of teacher efficacy, these factors can shape decisions made by educational stakeholders to ensure teacher self-efficacy levels promote effective teaching and learning in both public schools and Christian private schools.

# CHAPTER THREE: METHODS

## Overview

The purpose of this quantitative causal-comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. This chapter begins by introducing the design and rationale of the study while identifying and defining all variables. The research question and null hypothesis are outlined before a detailed description of participants and setting, instrumentation, and procedures is presented. Finally, the chapter concludes with the data analysis plans, which provide a foundation for the findings in the next chapter.

## Design

This study used a quantitative causal-comparative research design to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. Through quantitative study, the research conducted with a sample population and findings can be reported objectively to address the study's purpose of describing a situation. For this study, a causal-comparative design was selected to determine the cause-and-effect relationship between the independent and dependent variables (Gall et al., 2007). Additionally, this research design allowed for a better study of how variables impacted the observed situation (Fraenkel & Wallen, 2006). Since causal-comparative design is a nonexperimental investigation, "inferences about causality on the basis of the collected data are necessarily tentative" (Gall et al., 2007, p. 310). This limitation is noted when discussing the findings.

Furthermore, a causal-comparative design allows for the groups that were already created before the research (Christian private schools and public schools) to be studied to determine differences among the dependent variables (Schenker & Rumrill, 2004). The independent variable is the employment type of elementary teachers—Christian private or public. Christian schools are privately funded, generally by the families of enrolled students. These schools focus on faith-based instruction of curricular content. Christian schools are often smaller than public schools and obtain greater parental involvement (Swaner & Lee, 2020). Public schools are governmentally funded, secular institutions for teaching and learning. Public schools, on average, have higher student enrollments and greater minority and lower socioeconomic student populations than private schools (National Center for Education Statistics, 2020). The four dependent variables are overall efficacy, student engagement, instructional strategies, and classroom management. Self-efficacy is the personal belief system that an individual holds about the ability to successfully complete a desired outcome (Bandura, 1977a, 2006; Greene, 2018). Student engagement can be measured by the motivation that students possess to complete work, especially when the work is considered uninteresting to the student (Tschannen-Moran & Woolfolk Hoy, 2007). Instructional strategies are techniques integrated within teaching that impact student achievement. Teachers who consider themselves to be effective teachers will utilize more instructional strategies that positively impact student achievement (Hattie & Anderman, 2019). Classroom management outlines how teachers structure student routines and behaviors within their classrooms (Zee et al., 2016). The dependent variables will be measured with the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001).

A causal-comparative design was appropriate for this topic by allowing for a study of the cause-and-effect relationship between employment type of elementary teachers and reported

efficacy levels. This type of design allowed for explanations to be derived of "educational phenomena through the study of cause-and-effect relationships" (Gall et al., 2007, p. 306). The groups of employment type—Christian private school or public school—are pre-existing, so a non-experimental design allowed for research to be conducted without manipulation of the independent variable. This research design focused on comparing the relationships between differing groups on a dependent variable (Colson et al., 2021). The formation of groups to measure the independent variable creates a realistic perspective for researchers in the field of education and allows for data to be more easily understood and reported (Gall et al., 2007).

## Research Question

**RQ:** Is there a difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management?

## Hypothesis

The null hypothesis for this study is as follows:

**$H_0$:** There is no significant difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management as measured by the Teachers' Sense of Efficacy Scale.

## Participants and Setting

This study consisted of a convenience sample of kindergarten through fifth grade teachers at Christian private schools and public schools in the southeastern United States near where the researcher resides. The population consisted of elementary school teachers from various demographic backgrounds within a suburban and urban area with predominantly middle-class communities. A sample size that was appropriate for statistical analysis of a medium effect size

was drawn. The survey was administered digitally via an email to teachers within the targeted population sample at the Christian private and public schools.

**Population**

The population of the study consisted of participants drawn from a convenience sample of elementary school teachers in the southeastern United States during the 2021–2022 school year. These teachers were emailed the survey via their school email accounts for anonymous completion. Convenience sampling allowed for the participants selected to be convenient for the researcher based on proximity, familiarity, or other close relationships (Gall et al., 2007). The schools sampled included 17 Christian private and nine public schools. The schools are located in suburban and urban communities comprised of primarily middle-class communities. In 2019, it was reported that the median income of the largest city near to the area sampled was $56,623 with a 14.6% poverty rate (Data USA, 2019). The elementary public schools that were sampled have a combined approximate enrollment of 7,600 students. These enrollments represented an average of approximately 11% of students with disabilities, 7% of English language learners, and 10% of economically disadvantaged students. The Christian private schools sampled, of which 13 provided statistical data included here, had a combined enrollment of approximately 3,000 elementary students. These enrollments represented an average of approximately 5% of students with disabilities, 1% of English language learners, and 24% of students receiving scholarships or tuition assistance to attend the private school.

**Participants**

This study was conducted with 229 participants sampled, which exceeded the required minimum of 144 for a multivariate analysis of variance (MANOVA) when assuming a medium effect size with statistical power of 0.7 and alpha level of .05 (Gall et al., 2007). This is based on

an analysis of variance for the four dependent variable groups. The sample groups were derived from 17 Christian private schools and nine public schools of naturally occurring kindergarten through fifth grade teachers. Demographic data were collected from each of the school groups. Table 1 presents the demographic data of the two sample groups.

**Table 1**

*Participant Demographics*

| Demographic Characteristics | % of Public School Sample | % of Christian School Sample |
|---|---|---|
| Gender | | |
| Female | 95.8 | 95.5 |
| Male | 4.2 | 4.5 |
| Age | | |
| 18–29 years | 18.8 | 15.8 |
| 30–39 years | 33.3 | 23.3 |
| 40–49 years | 28.1 | 30.1 |
| 50–59 years | 18.8 | 22.6 |
| 60+ | 1.0 | 8.3 |
| Ethnicity | | |
| White | 96.9 | 99.2 |
| Hispanic or Latino | 1.0 | -- |
| Mixed | 2.0 | -- |
| Other | -- | 0.8 |
| Years of Teaching Experience | | |
| 0–5 years | 18.8 | 21.8 |
| 6–10 years | 28.1 | 22.6 |
| 11–15 years | 30.2 | 15.8 |
| 16–20 years | 8.3 | 14.3 |
| 21+ years | 14.6 | 25.6 |

| Demographic Characteristics | % of Public School Sample | % of Christian School Sample |
|---|---|---|
| Grade Levels Taught | | |
| K | 14.6 | 18.0 |
| 1 | 12.5 | 13.5 |
| 2 | 11.5 | 14.3 |
| 3 | 19.8 | 14.3 |
| 4 | 13.5 | 10.5 |
| 5 | 12.5 | 15.8 |
| multiple K–5 grades | 15.6 | 13.5 |
| Highest Level of Education | | |
| Associate's | 1.0 | 0.8 |
| Bachelor's | 44.8 | 52.6 |
| Master's | 49.0 | 40.6 |
| Specialist | 3.1 | 4.5 |
| Doctorate | 2.1 | 1.5 |

**Setting**

The participants surveyed were from Christian private and public elementary schools in the southeastern United States. The nine public schools represented are within a large, public school district of approximately 60,000 students. The public schools that were selected for the sample include suburban and urban schools with middle to upper class socioeconomic demographics to establish a similar demographic comparison to the Christian private schools sampled. The Christian private schools that were sampled, of which 13 provided statistical data used here, range from approximately 75–400 elementary students and are demonstrative of suburban and urban schools with middle to upper class socioeconomic demographics. Elementary schools consist of kindergarten through fifth grades. The survey was shared via an online environment with a Qualtrics survey that was completed at the discretion and convenience of participants.

## Instrumentation

The Teachers' Sense of Efficacy Scale (TSES) was used as the instrument in this study to measure teacher efficacy among the Christian private and public school teachers surveyed. (See Appendix A for the instrument form). The TSES is a validated instrument used for self-assessment of teacher efficacy in the domains of overall teacher efficacy, efficacy in classroom management, efficacy in instructional strategies, and efficacy in student engagement. This instrument was developed based on the work of prior efficacy scales to appropriately measure teacher efficacy in the domains that represented the daily tasks involved with teaching (Tschannen-Moran & Woolfolk Hoy, 2001). The instrument selected is vital to the value of the data that are collected (Mullins, 2019). Therefore, the TSES was selected for the purpose of collecting data that would appropriately address the research question.

### Teachers' Sense of Efficacy Scale

The purpose of this instrument was to measure teacher efficacy. (See Appendix B for permission to utilize and publish the instrument). The TSES was developed as an instrument that focused on teacher domains that would be impacted by efficacy and was based on past instruments measuring efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). The TSES was selected because it measures efficacy based on Bandura's (1977a, 2006) self-efficacy theory that defines efficacy as the personal belief system that an individual holds about the ability to successfully complete a desired outcome. The instrument can be administered in approximately 10 minutes through self-reporting of responses on the survey form. The TSES has been utilized in many different studies aimed at better understanding teaching and learning in multiple perspectives (Burgueño et al., 2019; Pressley, 2021; Yildirim et al., 2016).

The development of Tschannen-Moran and Woolfolk Hoy's (2001) instrument stemmed

from earlier work in teacher efficacy scales. Various measurements have been developed since the 1970s to measure teachers' self-efficacy based on more current research and a need to also measure the efficacy levels of pre-service educators (Tschannen-Moran et al., 1998; Zee et al., 2016). More specifically, Tschannen-Moran and Woolfolk Hoy's scale was influenced by Rand (research and development) researchers who infused Julian Rotter's locus of control to explain how teacher efficacy impacts the level of control a teacher has in their ability to reinforce learning (Armor et al., 1976). The Rand measures focused on two items, which narrowed teacher efficacy descriptors into categories where teacher efficacy was determined by environmental factors or the belief that determination could lead to success. Expanding on this work, Guskey (1981) developed a 30-item questionnaire that measured responsibility for student achievement. This questionnaire measured beliefs of internal and external responsibility within academic contexts. Additionally, Rose and Medway (1981) developed an instrument measuring teacher locus of control, specifically towards beliefs about student successes and failures. To increase reliability of the Rand efficacy questions and decrease social desirability bias, the Webb scale was developed. These instruments provided the foundational basis for the development of the TSES, but they lacked the subcategories that accurately represented the tasks of teachers (Tschannen-Moran & Woolfolk Hoy, 2001).

The TSES was developed by researchers at the University of Ohio and included questions about teachers' capabilities (Tschannen-Moran & Woolfolk Hoy, 2001). The researchers conducted three studies to test the reliability, validity, and factor structure of the measurement. The tool should be administered as a self-assessment that is done independently in approximately 10 minutes and submitted for scoring. (See Appendix C for self-administration directions). The instrument consists of 24 questions that utilize a 9-point Likert scale and measure teacher

efficacy in classroom management, instructional strategies, and student engagement. The scale ranges from choices of *Nothing* to *A Great Deal*. Responses were as follows: A Great Deal = 9, Quite a Bit = 7, Some Degree = 5, Very Little = 3, and None at all = 1. The TSES is scored by the researcher finding the sum of the Likert scale responses. The overall combined teacher efficacy score on the TSES ranges from 24–216. A score of 24 would be interpreted as the lowest level of teacher efficacy, whereas a score of 216 would suggest high teacher efficacy. Subscale scores were factored as unweighted means and measured efficacy with classroom management, instructional strategies, and student engagement. Efficacy levels with subscales were found with the following responses: classroom management test items (Questions 3, 5, 8, 13, 15, 16, 19, and 21), instructional strategies test items (Questions 7, 10, 11, 17, 18, 20, 23, and 24), and student engagement test items (Questions 1, 2, 4, 6, 9, 12, 14, and 22).

The TSES items were found to be reliable and valid after statistical analysis demonstrated alpha levels of .94 for overall teacher efficacy, .87 for student engagement, .91 for instructional strategies, and .90 for classroom management. Additionally, Tschannen-Moran and Woolfolk Hoy (2001) compared the TSES with prior teacher efficacy instruments to determine the construct validity and found the instrument to be both valid and reliable and appropriate for depicting a more targeted review of teacher efficacy in relation to the requirements of the teaching profession. The construct validity results show that the TSES was positively related to Rand items ($r = 0.18$ and $0.53$, $p < 0.01$), Gibson and Dembo's personal teaching efficacy factor ($r = 0.64$, $p < 0.01$), and the general teacher efficacy factor ($r = 0.16$, $p < 0.01$; Tschannen-Moran & Woolfolk Hoy, 2001). Questions have arisen about the validity of the TSES for different educator sub-groups, but a multifactor analysis showed no significant difference between males and females for TSES data analysis (Dogan et al., 2019). This analysis is influential for making

instructional decisions among diverse teaching staff. Ultimately, through the integration of the TSES, educators can determine their self-efficacy levels and ways to increase those levels (Ene et al., 2021).

## Procedures

Institutional Review Board (IRB) approval was obtained from Liberty University and consent from the participating public school district and Christian private schools. (See Appendix D for IRB approval from Liberty University and Appendix E for school permission request email template). The researcher obtained permission to utilize and republish the TSES instrument, which was inputted into Qualtrics to generate a web-based survey link. (See Appendix B for permission to utilize and republish the TSES instrument). After IRB approval was granted, the researcher emailed the school administrators the TSES instrument survey link to forward to their elementary teachers via an email to their school accounts. Administrators also received information about the study and contact information for any future questions among school staff. Teachers were informed in the emailed survey of their voluntary participation and the purpose of the study. An incentive was offered to complete the survey; those who submitted the survey and provided an email address were entered in a raffle system for the chance to win a $100 Amazon gift card. The inclusion of a prize incentive has been shown to increase return rates of fully completed surveys (Bosnjak & Tuten, 2003). Those who opted to take the survey completed a digital consent form and demographic information prior to responding to the TSES items. (See Appendix F for the consent form template and Appendix C for the instructions for participants and administrators that was included in the email). As surveys were taken, data were digitally shared with the researcher through Qualtrics and remained secure and ensured participant anonymity. These data were inputted into SPSS software for statistical analysis to

draw results. The results were analyzed and shared. Lastly, the researcher sent thank you letters to the administrators of the participating schools.

To protect the integrity of the collected data, the survey links were set so that each participant could only submit one reply and not be able to edit any responses after submission. Additionally, the surveys were completed anonymously. The data from responses were digital and only viewable by the researcher and did not contain any identifying information from participants. The findings and results were shared in such a way as to ensure the anonymity of participants and schools involved. The data will be kept for 5 years after completion of the study.

## Data Analysis

The analysis of the data collected allowed for findings to be interpreted and later reported. To begin the data analysis, an exploratory data analysis and computing of descriptive statistics occurred. These calculations allowed for the group mean and standard deviation to be determined, which was needed for further statistical analysis (Gall et al., 2007). The descriptive statistics provide more information about the details of the population sampled (Warner, 2021). Following this, a test of statistical significance was conducted, which can vary based on assumptions and which data are targeted for comparison (Gall et al., 2007). For this study, the test of statistical significance was conducted with a multivariate analysis of variance (MANOVA). A MANOVA analysis was selected to compare the categorical independent variable groups between the four dependent variables (Gall et al., 2007). Gall et al. explained how unlike a *t* test, which can only measure differences in one dependent variable, a MANOVA provides the opportunity for measuring differences in multiple dependent variables to determine if there is a statistically significant difference among the centroids of each independent variable group. Furthermore, a MANOVA can be conducted to determine if there is a difference between

groups in more than one dependent variable (Gall et al., 2007; Warner, 2021). A MANOVA is the test of statistical significance that was conducted because this study utilized four dependent variables among two groups. A MANOVA analysis allowed for addressing of the research hypothesis in this study to determine the differences in teacher efficacy between public and Christian private school teachers when comparing overall efficacy, classroom management, instructional strategies, and student engagement.

These data were analyzed with a box and whisper plot and detection for extreme outliers was conducted. Data screening was conducted to ensure that no data entries were missed or entered inaccurately in SPSS. A linear relationship was sought between the dependent variable to complete the assumption of multivariate normal distribution. Assumption of normality was tested with a Kolmogorov-Smirnov test and Q-Q plots. The assumption of homogeneity of variances was tested within SPSS with Levene's test for equality of variances to determine if there were equal variances among groups. Additionally, an absence of multicollinearity was studied. When assuming a medium effect size, an alpha level of .05 was used for an analysis of variance of four groups ($\alpha = .05$). The effect size was measured with partial eta-squared $\eta^2$ (Gall et al., 2007). Lastly, to determine if there were any multivariate outliers, Mahalanobis distance values were compared to a chi-square ($\chi^2$) distribution with degrees of freedom equal to 4 and with an alpha level of .001.

# CHAPTER FOUR: FINDINGS

## Overview

The purpose of this quantitative causal-comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. A causal-comparative design was appropriate for this topic since it allowed for a study of the cause-and-effect relationship between employment type of elementary teachers and reported efficacy levels. This chapter includes the research findings after administering the TSES and analyzing the results.

## Research Question

**RQ:** Is there a difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management?

## Hypothesis

The null hypothesis for this study is as follows:

**$H_0$:** There is no significant difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management as measured by the Teachers' Sense of Efficacy Scale.

## Descriptive Statistics

### Participant Demographics

This study consisted of 229 elementary teachers, which included 133 (58%) Christian private and 96 (42%) public school teachers. These teachers taught kindergarten to fifth grade in schools in the southeastern United States during the 2021–2022 school year. Participants' self-

reported demographic information regarding gender, ethnicity, age, years of teaching experience, grade level taught, and highest level of education are recorded in Table 1. Participants were given the option to complete a separate survey to be entered in a raffle for a $100 Amazon gift card after completing the efficacy survey, of which 99% of public school participants completed and 91.7% of private school participants.

**Dependent Variables**

The dependent variables of overall efficacy, instructional strategies, classroom management, and student engagement were measured from responses on the TSES using an exploratory data analysis to determine the mean and standard deviation. The TSES instrument consisted of 24 questions that utilized a 9-point Likert scale that measured teacher efficacy in classroom management, instructional strategies, and student engagement. The scale ranged from choices of *Nothing* to *A Great Deal*. Responses were as follows: A Great Deal = 9, Quite a Bit = 7, Some Degree = 5, Very Little = 3, and None at all = 1. The overall combined teacher efficacy score on the TSES ranges from 24–216. A score of 24 would be interpreted as the lowest level of teacher efficacy, whereas a score of 216 would suggest high teacher efficacy. Subscale scores were factored as unweighted means and measured efficacy with classroom management, instructional strategies, and student engagement. Efficacy levels with subscales were found with the following responses: classroom management test items (Questions 3, 5, 8, 13, 15, 16, 19, and 21), instructional strategies test items (Questions 7, 10, 11, 17, 18, 20, 23, and 24), and student engagement test items (Questions 1, 2, 4, 6, 9, 12, 14, and 22). The TSES was scored by the researcher finding the mean and sum of the Likert scale responses. The scores are reported in Table 2.

**Table 2**

*Descriptive Statistics: TSES Scores*

| | School Type | *M* | *SD* | *N* |
|---|---|---|---|---|
| Student Engagement | Private | 7.12 | 0.77 | 133 |
| | Public | 7.07 | 0.96 | 96 |
| | Total | 7.10 | 0.85 | 229 |
| Instructional Strategies | Private | 7.23 | 0.82 | 133 |
| | Public | 7.55 | 0.88 | 96 |
| | Total | 7.39 | 0.85 | 229 |
| Classroom Management | Private | 7.55 | 0.81 | 133 |
| | Public | 7.34 | 0.86 | 96 |
| | Total | 7.46 | 0.84 | 229 |
| Overall Efficacy | Private | 175.59 | 16.59 | 133 |
| | Public | 175.67 | 18.98 | 96 |
| | Total | 175.62 | 17.59 | 229 |

## Results

### Hypothesis

The null hypothesis was that there is no significant difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management as measured by the TSES. Data analysis was conducted to address this hypothesis and answer the research question.

### Assumption Tests

To ensure that a MANOVA was the appropriate statistical analysis for the data collection, assumption tests were conducted. The analysis was commenced by checking for outliers among the data using a boxplot. This revealed no extreme outliers as noted in Figures 1–4, and all data were kept.

**Figure 1**

*Teacher Efficacy for Student Engagement*

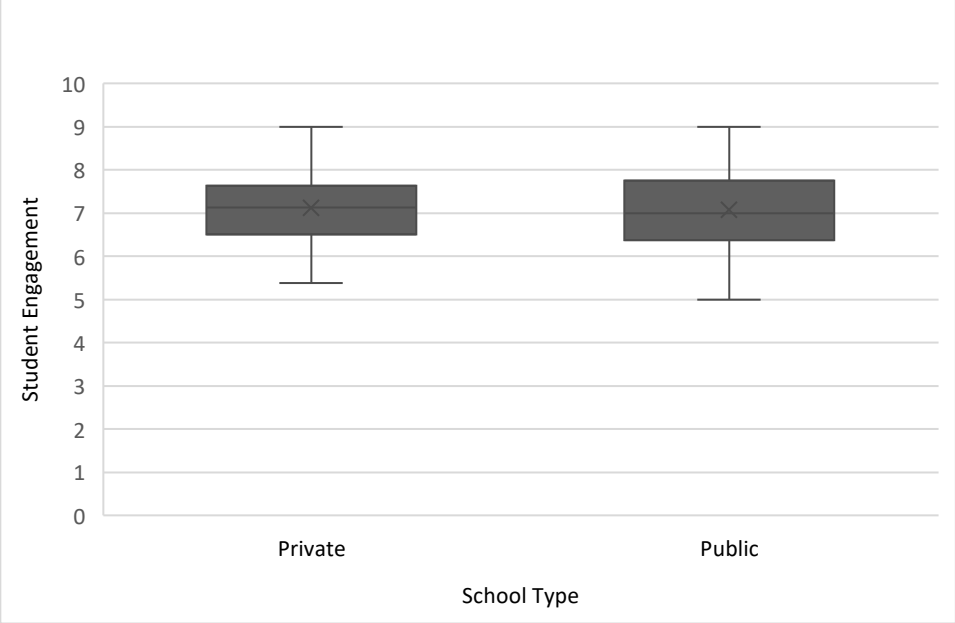



**Figure 2**

*Teacher Efficacy for Instructional Strategies*

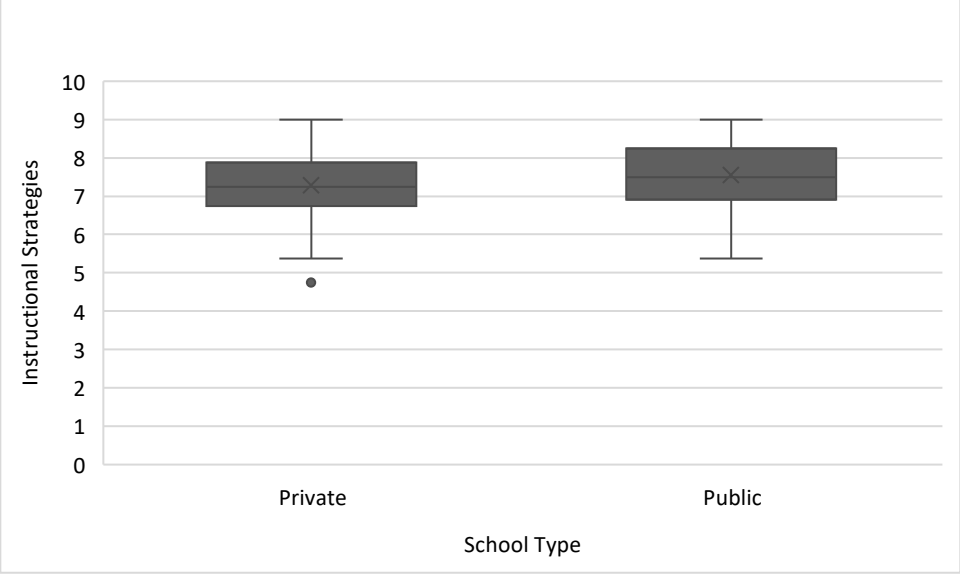


**Figure 3**

*Teacher Efficacy for Classroom Management*

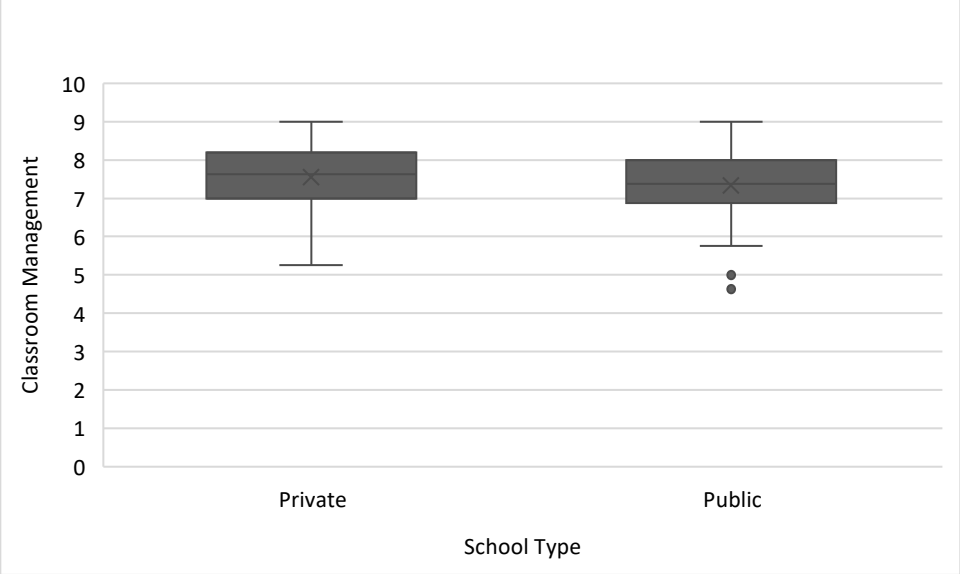
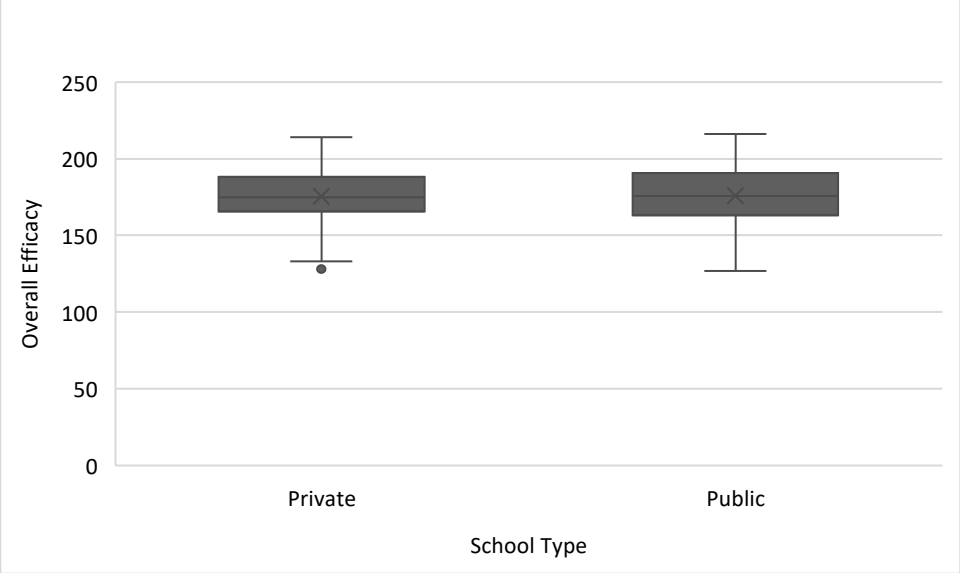



**Figure 4**

*Teacher Efficacy for Overall Efficacy*



The next assumption test conducted was that of normality. The sample size was greater than 50, so a Kolmogorov-Smirnov test was used to check for normality as shown in Table 3. Normality where $p > .05$ was not found for the variables of instructional strategies in public schools and classroom management in private schools. As the total sample size ($N = 229$) was large, further normality tests were conducted using a Q-Q plot. This normality test revealed that scores were normally distributed as shown in Figures 5–12.

**Table 3**

*Test of Normality*

| Dependent Variable | School Type | Kolmogorov-Smirnov[a] | | |
|---|---|---|---|---|
| | | Statistic | *df* | *p* |
| Student Engagement | Private | .062 | 133 | .200* |
| | Public | .061 | 96 | .200* |
| Instructional Strategies | Private | .053 | 133 | .200* |
| | Public | .101 | 96 | .018 |
| Classroom Management | Private | .084 | 133 | .022 |
| | Public | .060 | 96 | .200* |
| Total Efficacy | Private | .054 | 133 | .200* |
| | Public | .051 | 96 | .200* |

*This is a lower bound of the true significance.

[a] Lilliefors Significance Correction

**Figure 5**

*Normal Q-Q Plot of Student Engagement: Private Schools*

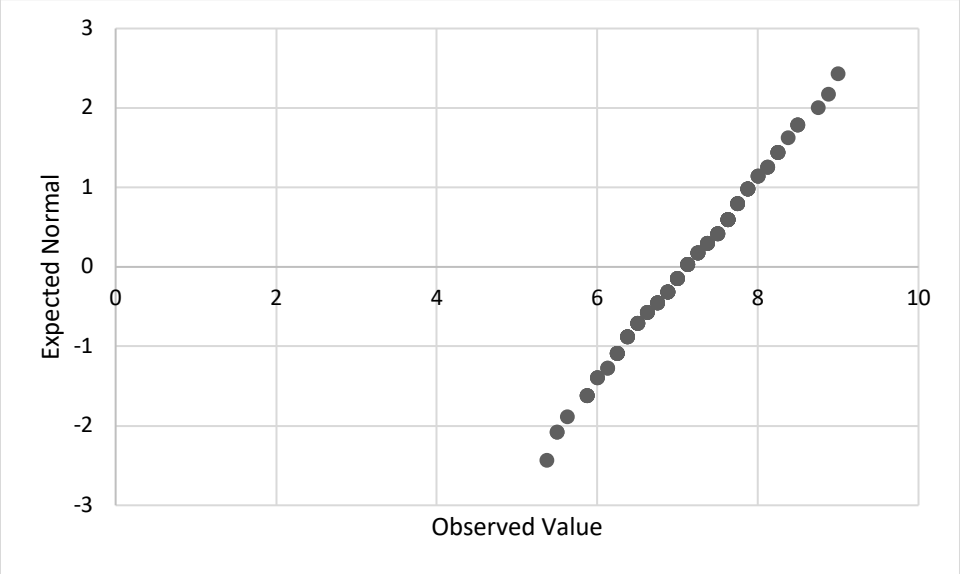



**Figure 6**

*Normal Q-Q Plot of Student Engagement: Public Schools*

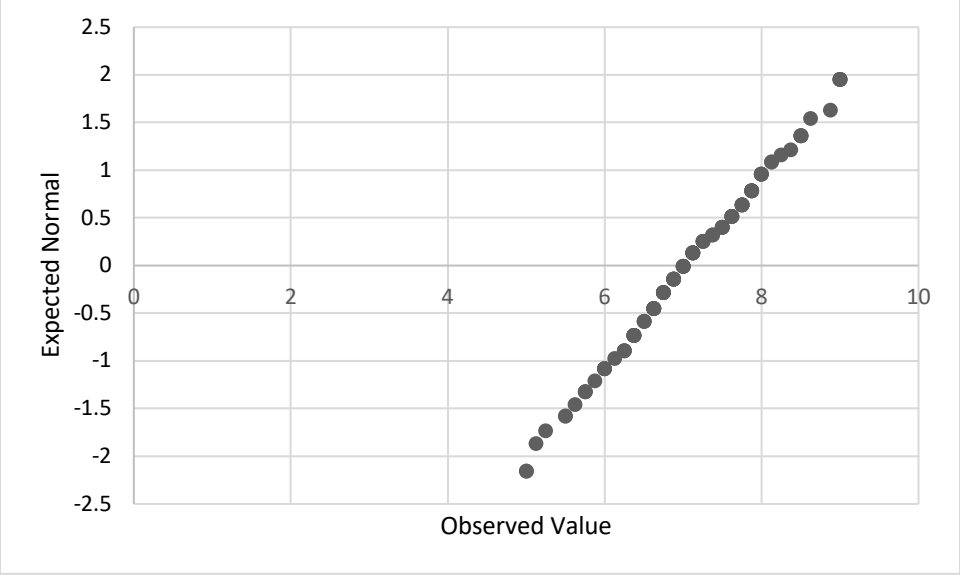


**Figure 7**

*Normal Q-Q Plot of Instructional Strategies: Private Schools*

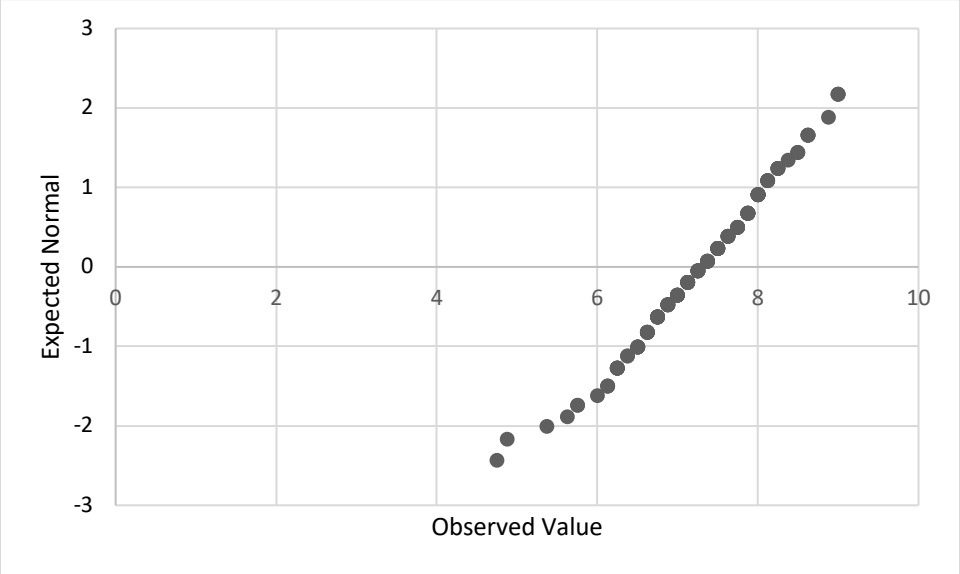



**Figure 8**

*Normal Q-Q Plot of Instructional Strategies: Public Schools*

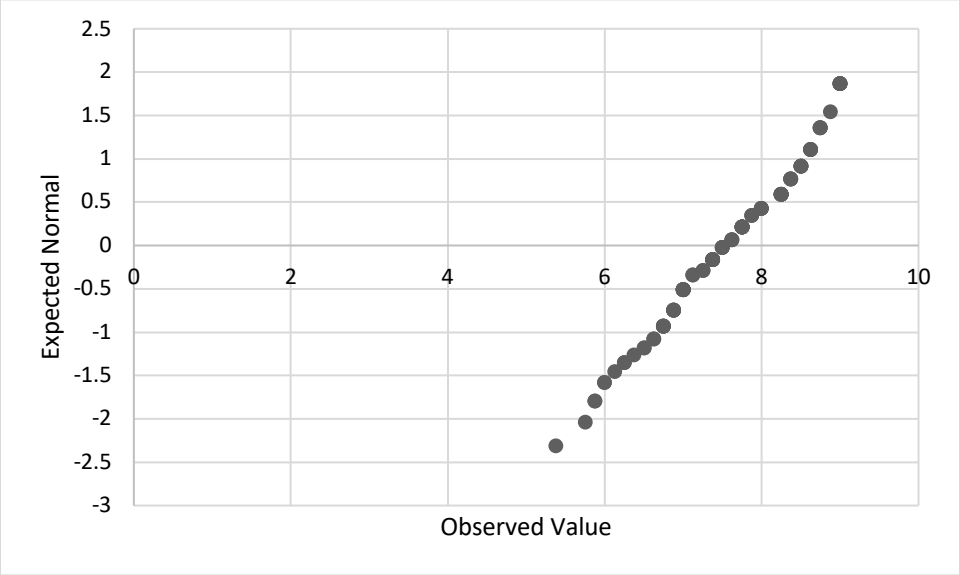


**Figure 9**

*Normal Q-Q Plot of Classroom Management: Private Schools*

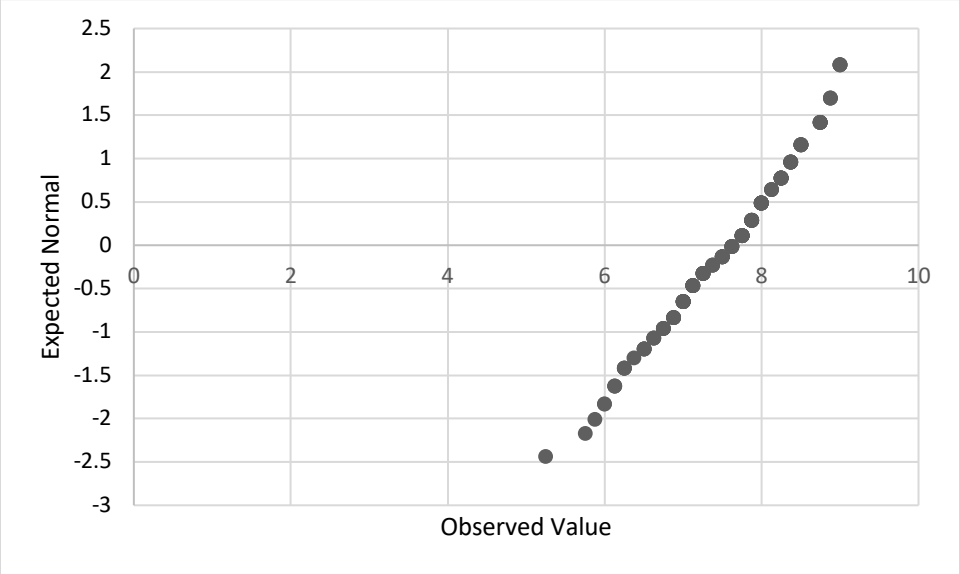



**Figure 10**

*Normal Q-Q Plot of Classroom Management: Public Schools*

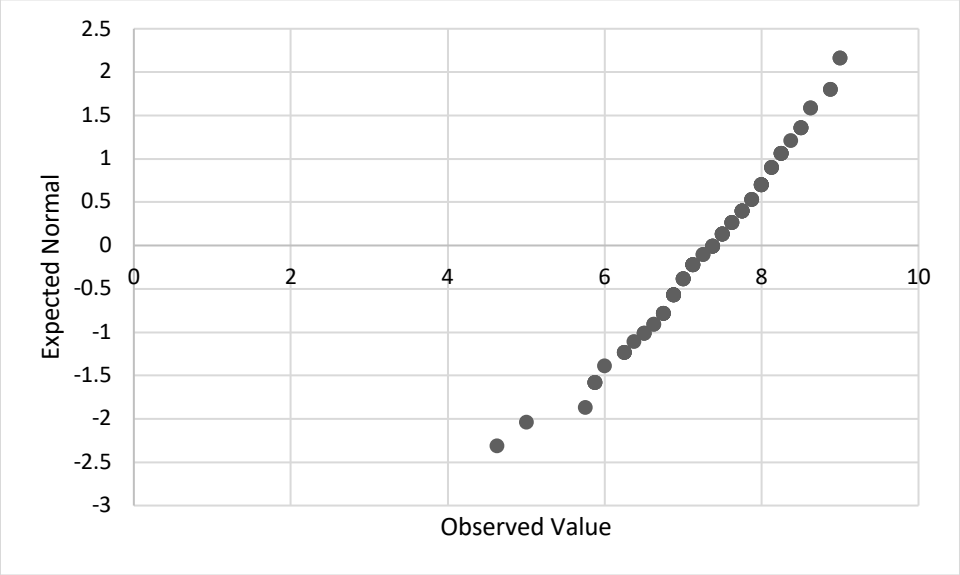


**Figure 11**

*Normal Q-Q Plot of Overall Efficacy: Private Schools*

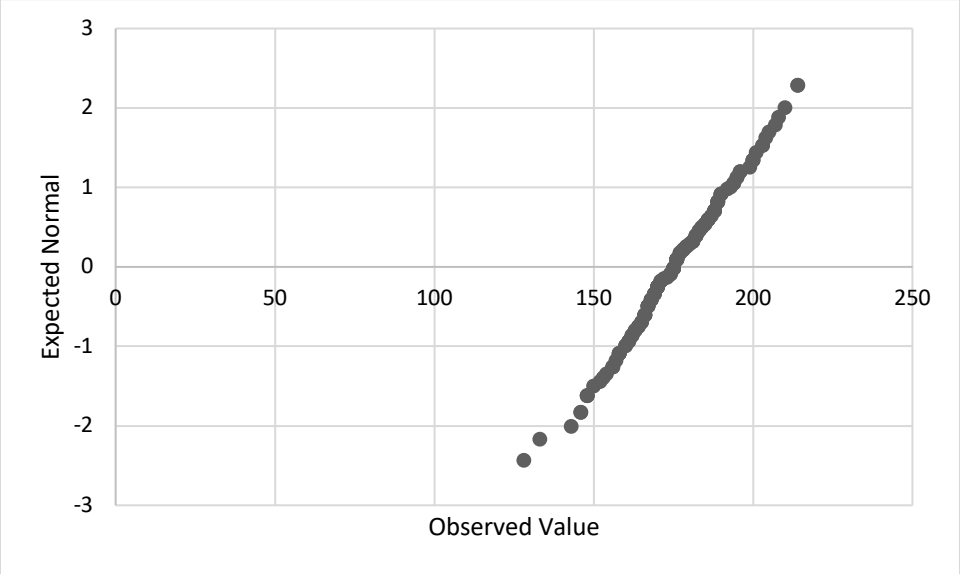
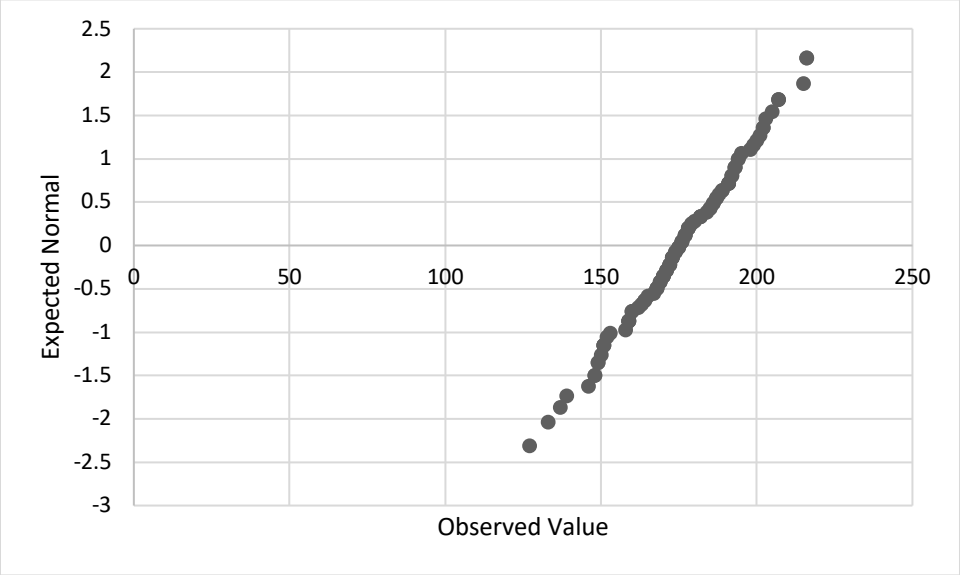



**Figure 12**

*Normal Q-Q Plot of Overall Efficacy: Public Schools*



Once the data were analyzed to be normally distributed, multicollinearity was tested with the Pearson correlation coefficient to determine the correlation strength between the dependent variables. The correlation between student engagement and instructional strategies was $r = .69$, $p < .001$. The correlation between student engagement and classroom management was $r = .66$, $p < .001$. The correlation between student engagement and overall efficacy was $r = .91$, $p < .001$. The correlation between instructional strategies and classroom management was $r = .51$, $p < .001$. The correlation between instructional strategies and overall efficacy was $r = .85$, $p < .001$. The correlation between classroom management and was $r = .84$, $p < .001$. These correlations indicate moderate to strong positive correlation among the dependent variables where $r < .9$. The correlation between student engagement and overall efficacy is slightly above .9, but removal of that dependent variable was not feasible. No multicollinearity correlation was detected based upon the data obtained as displayed in Table 4.

**Table 4**

*Pearson Correlations*

| Variable | *N* | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 1. Student Engagement | 229 | – | | | |
| 2. Instructional Strategies | 229 | .692*** | – | | |
| 3. Classroom Management | 229 | .660*** | .509*** | – | |
| 4. Total Efficacy | 229 | .908*** | .850*** | .835*** | – |

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

***p < .001

Additionally, an assumption of linearity was conducted to determine if there was a linear relationship between the dependent variables and each independent variable. Through a visual analysis of scatterplot matrices, a linear relationship was detected. See Figure 13 and 14 for the scatterplot matrices.

**Figure 13**

*Scatterplot Matrix: Private School and Dependent Variables*

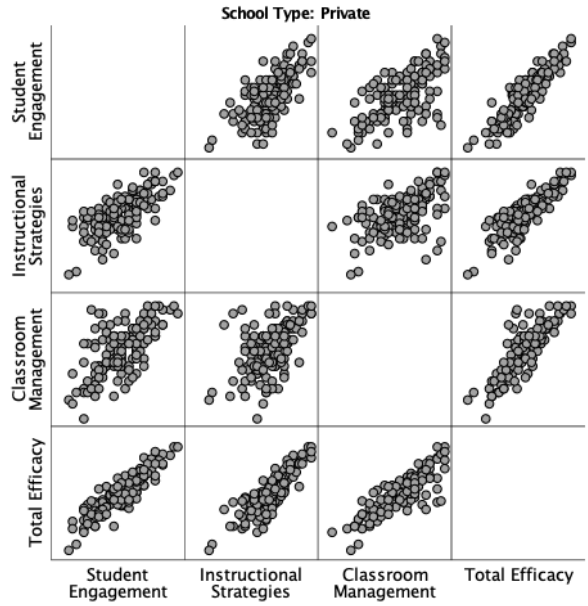
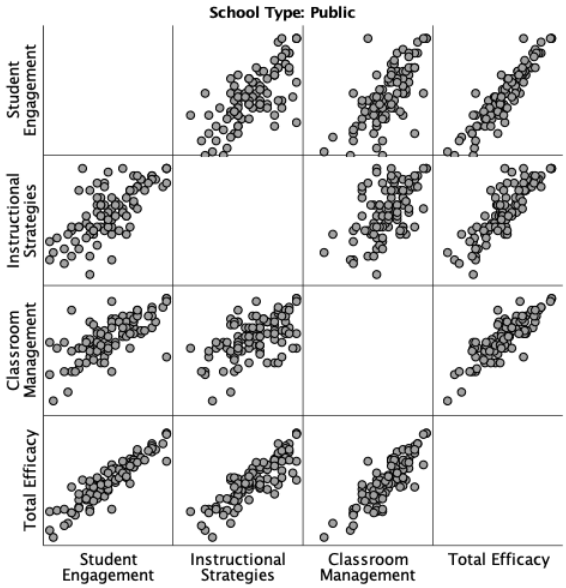



**Figure 14**

*Scatterplot Matrix: Public School and Dependent Variables*



Following this, a test was conducted to determine if there were any multivariate outliers. Mahalanobis distance values were compared to a chi-square ($\chi^2$) distribution with degrees of freedom equal to 4 and with an alpha level of .001. As there were four dependent variables, a critical value of 18.47 was utilized. No values were greater than 18.47, so no multivariate outliers were present as assessed by Mahalanobis distance ($p > .001$). The sample size assumption was also verified by using a test of between-subjects effects. This analysis demonstrated that $N > 4$ as the sample size consisted of 133 Christian private school teachers and 96 public school teachers. Levene's test for equality of variances was conducted to determine if there were equal variances among groups as shown in Table 5. The test for assumption of homogeneity of variances showed that $p > .05$ for the dependent variables of instructional strategies, classroom management, and overall efficacy. This resulted in no statistical significance for those variables and equal variances. However, the variable of student engagement was .02, thus violating the assumption of variance for that variable. This can be managed as the sample size is large and fairly equal among both groups.

**Table 5**

*Levene's Test of Equality of Error Variances*[a]

| | | Levene Statistic | *df*1 | *df*2 | *p* |
|---|---|---|---|---|---|
| Student Engagement | Based on Mean | 5.261 | 1 | 227 | .023 |
| Instructional Strategies | Based on Mean | 1.524 | 1 | 227 | .218 |
| Classroom Management | Based on Mean | 0.079 | 1 | 227 | .779 |
| Overall Efficacy | Based on Mean | 1.732 | 1 | 227 | .190 |

[a.]Design: Intercept + School Type

**MANOVA**

A one-way MANOVA was conducted to answer the research question. The results of the MANOVA are shown in Table 6. A Wilks' Lambda was the multivariate statistic used to test the statistical significance between the groups. This showed that there was a statistical significance where $p < .05$. The statistical significance was between school types and the dependent variables where $F(3, 225) = 7.172$, $p < .001$; Wilks' $\Lambda = .913$; partial $\eta^2 = .087$. The null hypothesis was rejected.

**Table 6**

*Wilks' Lambda Multivariate Test*

| Effect | | Value | *F* | Hypothesis *df* | Error *df* | *p* | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| School Type | Wilks' Lambda | .913 | 7.172 | 3.000 | 225.000 | <.001 | .087 |

Since there was a statistical significance, a post-hoc test was performed to determine which dependent variable was resulting in the statistically significant MANOVA. A one-way ANOVA was conducted to inspect each dependent variable as shown in Table 7. Tests of between-subjects effects revealed that the variable of instructional strategies, $p = .018$, was contributing to the statistical significance, $F(1,227)= 5.651$, $p < .05$, partial $\eta^2 = .024$.

**Table 7**

*Tests of Between-Subjects Effects*

| Source | DV | Type III *SS* | *df* | *MS* | *F* | *p* | $\eta_p^2$ |
|---|---|---|---|---|---|---|---|
| School Type | Student Engagement | 0.117 | 1 | 0.117 | .161 | .688 | .001 |
| | Instructional Strategies | 4.025 | 1 | 4.025 | 5.651 | .018 | .024 |
| | Classroom Management | 2.547 | 1 | 2.547 | 3.653 | .057 | .016 |
| | Overall Efficacy | 0.295 | 1 | 0.295 | .001 | .975 | .000 |
| Error | Student Engagement | 165.203 | 227 | 0.728 | | | |
| | Instructional Strategies | 161.683 | 227 | 0.712 | | | |
| | Classroom Management | 158.281 | 227 | 0.697 | | | |
| | Overall Efficacy | 70543.409 | 227 | 310.764 | | | |

# CHAPTER FIVE: CONCLUSIONS

## Overview

This chapter presents the results of the data collected comparing elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement. A discussion will provide an overview of how the results aligned with the literature and theoretical framework. This discussion will lead to an analysis of the implications that arise from the data collected and their impacts on educational stakeholders. Additionally, the limitations of this study will be discussed and their impacts on the findings reported. Finally, the results discussed will provide an exploration for possible future research that can grow the study of research in the field of teacher self-efficacy.

## Discussion

The purpose of this quantitative causal-comparative study was to compare elementary teacher efficacy in Christian private schools and public schools to determine if there was a difference in overall efficacy, instructional strategies, classroom management, and student engagement.

### Research Question

**RQ:** Is there a difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management?

The findings addressed the research question by determining that there was a significant difference among elementary, Christian private and public school teachers' scores for overall efficacy, student engagement, instructional strategies, and classroom management (see Table 6).

This significance was found where $p < .001$ and the null hypothesis was rejected. When comparing the independent variables of school types, similarities of teacher responses were recorded with some varying results among the two groups. Teachers from both school types had an average mean of 7.10 for student engagement, 7.39 for instructional strategies, 7.46 for classroom engagement, and 175.62 for overall efficacy. These data suggested that the teachers surveyed are quite confident in their ability to impact student learning. Based on prior research, this would also suggest that these teachers with high self-efficacy would also believe that all students can learn (Prewett & Whitney, 2021). Since all the teachers surveyed taught at an elementary school, the higher levels of efficacy can also be tied to teaching in an elementary school where efficacy levels are greater (Zee & Koomen, 2016). These findings suggested that elementary teachers in Christian and public schools surveyed are confident in their abilities to positively impact teaching and learning.

Despite the similarities among reported efficacy levels between the school types, slight differences arose when comparing each dependent variable. Private school teachers reported a slightly higher mean than public school teachers in the domains of student engagement and classroom management. These domains could be influenced by the emphasis within private schools on community building and unity in mission (Coleman & Hoffer, 1987; Ingersoll, 2001). Additionally, the historically smaller school environments and greater parental involvement of private schools (Lubienski et al., 2008; Swaner & Lee, 2020) can lend to less issues with engagement and classroom management, leading to increased teacher efficacy levels within those areas. Furthermore, public school teachers reported higher levels than private school teachers for instructional strategies and overall efficacy. This can be supported by the greater emphasis placed on public school teachers on teacher certification and reform-based instructional

practices (Lubienski et al., 2008), which can impact instructional strategies and overall efficacy. The differences present can provide educational stakeholders areas of focus that can be strengthened with professional development and teacher coaching to increase efficacy levels and impact student achievement. The belief systems that a person holds impact the processing of behaviors (Bandura, 1986; Greene, 2018), so by better understanding teacher efficacy levels, school leaders can anticipate behaviors that will impact teaching and learning.

Additionally, analyses (see Table 4) revealed that a positive correlation existed between the dependent variables. Student engagement, instructional strategies, and classroom management each impact daily instruction and student learning. As such, they impact teacher efficacy levels (Tschannen-Moran et al., 1998). These correlations create environments where teacher efficacy can be high, fostering an environment that cultivates teacher support, enthusiasm, and responsiveness development (Guo et al., 2012).

The statistical significance that was found through a one-way MANOVA (see Table 6) revealed that there were differences between public school teacher and Christian school teachers' self-efficacy reports. Many environmental factors shape teacher efficacy and confidence in attaining goals (Zee et al., 2016). These differences could be due to the school environment, demographics, and teacher experiences present among Christian and public schools. For example, years of teaching experience have been found to increase teacher efficacy (Wyatt, 2018). In this study, 53% of public school teachers and 56% of Christian school teachers had more than 10 years of teaching experience. More specifically, the variable of instructional strategies contributed to the statistical difference. Instructional strategies allow for impactful instruction and delivery of information to students, so they are essential for student learning (Stronge & Xu, 2016). Despite their impact on student learning, low teacher efficacy beliefs can

hinder the impact of instructional strategies if teachers are not confident in their abilities to influence student learning with those strategies. Instructional strategies also impact student academic achievement. Teachers who have higher self-efficacy in implementation of effective instructional strategies can lead students to greater academic achievement (Hattie & Anderman, 2019). The public school teachers in this study reported slightly higher levels of efficacy with instructional strategies, which could be due to differences in curriculum, professional development, or teacher experiences present within a public school environment. The statistical differences are worth noting and exploring to better understand how teacher efficacy is shaped in public and Christian schools.

## Implications

This study addressed the gap in the research comparing the efficacy of teachers in Christian and public schools. The significant difference that was found illustrates the need to better understand the factors that impact the development of teacher self-beliefs that are present in public and Christian schools. Since Christian schools have experienced increased enrollment in recent years (Swaner & Lee, 2020), developing a better foundation of the factors that influence teacher efficacy levels can better impact the growing population of private school students. Additionally, Christian schools can be directly contrasted with public schools on the integration of religious and faith-based education. This contrasting factor should be considered when considering the efficacy levels of Christian school teachers and how that compares to public school teachers who cannot integrate faith within instruction. Teachers with greater levels of efficacy create better learning environments for students (Zee et al., 2016). Thus, this study can provide a starting point for school leaders at public and Christian schools to leverage areas of higher teacher efficacy to create the best learning environments for their students.

Classroom management, student engagement, and instructional strategies each impact teacher efficacy levels (Tschannen-Moran et al., 1998). As such, the average means between school types for each of these variables can provide a foundation for knowledge seeking among educational stakeholders and provide opportunities for discussion and questions from the greater school community. The slight difference where public school teachers reported higher efficacy levels with instructional strategies could be considered based on the knowledge that on-going professional development, recertification, and state and district policy mandates greatly impact public school teacher practices. Furthermore, the smaller communities and increased parental involvement within private schools could be contributing to the slightly increased efficacy levels of student engagement and classroom management of Christian school teachers. This study exposes some environmental factors that could be impacting teacher efficacy levels. Better understanding of these factors can help educators with goal setting and creating pathways to better teaching and learning opportunities.

The implications of this study reveal that the differences present among school types can impact how teacher efficacy levels are shaped. Although some of these factors cannot be manipulated, some factors such as those impacting instructional strategy levels can be better examined by educational stakeholders to determine areas for growth and areas for recognition. Despite many similarities among elementary teachers in Christian and public schools in the southeastern United States, this study revealed that differences exist that can shape the efficacy development of educators and ultimately impact student achievement and teacher effectiveness.

## Limitations

This study was conducted during the prolonged COVID-19 pandemic, which has had a myriad of impacts on teaching and learning. Teacher efficacy has varied throughout the different

phases of the pandemic that have included lockdowns, school closures, virtual and hybrid learning environments, and gradual returns to standard school environments with enforced COVID health and safety protocols. The teachers surveyed for this study taught at schools with varying levels of COVID protocols and changes that impacted their daily instructional routines. Research has proposed that teacher efficacy has lowered when compared with levels before the pandemic (Cataudella et al., 2021; Pressley, 2021). The pandemic has demonstrated that external environmental factors can have a direct impact on teacher efficacy levels.

Additionally, the participants in this study taught at schools located within one southeastern state, which could reduce the generalizability of the results to the greater teacher population. The public schools surveyed were all located within one school district, but due to smaller teacher populations, the Christian schools surveyed were from multiple cities within the same state. Thus, the results may be due to internal school factors, district policies, or community demographics that may vary from those of teachers in other states or parts of the country. To limit variables, the researcher selected schools with similar socioeconomic and demographic communities, so the results may not be similar in school communities with different socioeconomic or demographic factors. Furthermore, the participants consisted of mostly females from both school types, so results may not be the same for male teachers.

The statistical analysis revealed a limitation in that the variable of student engagement was .02, thus violating the assumption of variance for that variable. Also, the correlation between student engagement and overall efficacy was slightly above 0.9, suggesting a strong correlational relationship between these two variables, which should be considered when analyzing the data.

## Recommendations for Future Research

Based on the findings of this study, future research could be conducted with different demographics to further the research base of teacher efficacy. A comparative study of Christian private and public school teacher efficacy among secondary (grades 6–12) teachers would provide more research based on grade levels taught by participants. As this study focused on Christian private schools, further research could include non-religious private school teachers. Additionally, gathering a larger sample size of teachers outside the southeastern United States could provide for more generalizable data. Furthermore, a longitudinal study could provide evidence of possible changes in teacher efficacy among Christian and public school elementary teachers after the COVID pandemic is over. Future research would provide more clarity and data that could impact teaching and learning.

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# APPENDICES

## Appendix A: TSES Instrument

### Teacher Beliefs - TSES

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

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

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

| | None at all | | Very Little | | Some Degree | | Quite A Bit | | A Great Deal |
|---|---|---|---|---|---|---|---|---|---|
| 1. How much can you do to get through to the most difficult students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2. How much can you do to help your students think critically? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3. How much can you do to control disruptive behavior in the classroom? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4. How much can you do to motivate students who show low interest in school work? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5. To what extent can you make your expectations clear about student behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6. How much can you do to get students to believe they can do well in school work? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7. How well can you respond to difficult questions from your students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8. How well can you establish routines to keep activities running smoothly? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9. How much can you do to help your students value learning? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10. How much can you gauge student comprehension of what you have taught? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 11. To what extent can you craft good questions for your students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 12. How much can you do to foster student creativity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 13. How much can you do to get children to follow classroom rules? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14. How much can you do to improve the understanding of a student who is failing? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15. How much can you do to calm a student who is disruptive or noisy? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 16. How well can you establish a classroom management system with each group of students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 17. How much can you do to adjust your lessons to the proper level for individual students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 18. How much can you use a variety of assessment strategies? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 19. How well can you keep a few problem students from ruining an entire lesson? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 20. To what extent can you provide an alternative explanation or example when students are confused? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 21. How well can you respond to defiant students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 22. How much can you assist families in helping their children do well in school? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 23. How well can you implement alternative strategies in your classroom? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 24. How well can you provide appropriate challenges for very capable students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

## Appendix B: Permission to Use and Publish TSES


ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

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

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

Best wishes in your work,

[redacted]

Anita Woolfolk Hoy, Ph.D.
Professor Emeritus

**[External] Re: TSES permission**

Anita Woolfolk Hoy [redacted]
Mon 7/18/2022 11:01 PM
To: Floyd, Jasmine [redacted]

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

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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

> On Jul 18, 2022, at 8:23 AM, Floyd, Jasmine [redacted] wrote:
>
> Good afternoon Dr. Woolfolk Hoy,
>
> I am a doctoral student at Liberty University and would like to request permission to use and publish a copy of the TSES scale(long version) within the appendix of my dissertation study.
>
> Thank you for your consideration.

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

January 6, 2022

Jasmine Floyd,

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

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

Please use the following as the proper citation:

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

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

All the best,

Megan Tschannen-Moran
William & Mary School of Education

## Appendix C: Survey Instructions

Hello,

You are invited to take an anonymous and voluntary survey on teacher efficacy to provide data for the dissertation study of Jasmine Floyd, a doctoral student at Liberty University. This survey will take approximately 10 minutes, and you will have the opportunity to enter a raffle for a $100 Amazon gift card. Please click the link below by May 20, if you would like to participate. Thank you for your time.

Survey Link: (provided in email)

# Appendix D: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

May 10, 2022

Jasmine Floyd
Jessica Talada

Re: IRB Exemption - IRB-FY21-22-800 A COMPARATIVE STUDY OF ELEMENTARY TEACHER EFFICACY IN CHRISTIAN PRIVATE SCHOOLS AND PUBLIC SCHOOLS

Dear Jasmine Floyd, Jessica Talada,

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: School Permission Request Email Template

Dear [School Administrator],

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a PhD degree. The title of my research project is A Comparative Study of Elementary Teacher Efficacy in Christian Private Schools and Public Schools. The purpose of my research is to compare elementary teacher efficacy in Christian private schools and public schools to determine if there is a difference in overall efficacy, instructional strategies, classroom management, and student engagement.

I am writing to request your permission to contact KG–5$^{th}$ grade classroom teachers at your school to invite them to participate in my research study. A survey link would be provided to you for sending to your teachers.

Participants will be asked to complete the attached survey about teacher efficacy, which will take approximately 10 minutes. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time. Teacher responses would be anonymous.

Thank you for considering my request.

Jasmine Floyd
PhD student

# Appendix F: Participant Informed Consent Form

## Participant Consent Form

**Title of the Project:** A Comparative Study of Elementary Teacher Efficacy in Christian Private Schools and Public Schools

**Principal Investigator:** Jasmine Floyd, 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 at least 18 and currently be a KG-5th grade classroom teacher at a public or Christian private school. 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 this dissertation study is to compare the efficacy of elementary teachers in Christian private schools to the efficacy of elementary teachers in public schools to determine if there is a difference in overall efficacy, instructional strategies, classroom management, and student engagement. Teacher efficacy is the confidence that a teacher has in his or her ability to impact student learning, and it has a significant impact on student academic achievement.

### 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:

- Complete an online survey about teacher efficacy. This will take approximately 10 minutes to complete.

### 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 about teacher efficacy that can support teaching and learning practices.

### 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. After three years, all electronic records will be deleted.

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

Participants will not be compensated for participating in this study. However, participants will have the option upon completion of the survey to provide their email address for entry in a raffle for a $100 Amazon gift card. Email addresses will be pulled from the study survey by the survey software and provided to the researcher separately from your responses to maintain your anonymity.

**Does the researcher have any conflicts of interest?**

The researcher serves as an educator at [redacted]. To limit potential or perceived conflicts, the study will be anonymous so the researcher will not know who participated. This disclosure is made so you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

**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 Jasmine Floyd. 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, Dr. Jessica Talada, 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.