

THE RELATIONSHIP BETWEEN ADMINISTRATORS' USE OF SHARED LEADERSHIP
PRACTICES AND TEACHER EFFICACY DURING THE COVID-19 PANDEMIC

By

Cheryl Turner Cavanaugh, Ed.D.

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

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ABSTRACT

Shared leadership is a valuable phenomenon in education that has been studied for the past 100 years. The purpose of this study is to examine the relationship between Christian school administrators' shared leadership practices and teacher efficacy during the COVID-19 pandemic. The researcher had a unique opportunity to study shared leadership in Christian schools during a world-wide crisis. The participants were chosen from a convenience sample of high school teachers and administrators employed at Association of Christian Schools International (ACSI) member schools in the southeast region of the United States (Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia) during the summer semester of the 2022-2023 school year. The participants answered survey questions from the Shared Leadership Perception Scale and the Teachers Sense of Efficacy Scale. Data were collected from the surveys, and multiple linear regression was used to determine if the null hypotheses could be rejected. Results from the data analysis confirmed the null hypothesis could be rejected; there is a significant relationship between the linear combination of the shared leadership domain and teacher efficacy. However, only one construct of shared leadership, decentralized interactions, had a statistically significant effect on teacher efficacy. This study reveals the areas of shared leadership that Christian school educators should focus to improve teacher efficacy, especially during a dilemma.

Keywords: shared leadership, teacher efficacy, Christian education

Dedication

I dedicate this research to my family, Liberty Christian Academy staff, and New Beginnings staff. I am driven by a deeply rooted desire to see continuous improvement and ultimate success in our Christian schools. I long to make the people and environments around me better. This desire is what drives my passion for educational research. I never want to waste a precious moment God has given me. My desire is to live life to the fullest and impact others for good.

“How wonderful it is that nobody need wait a single moment to improve the world”
(Anne Frank).

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To my husband of nearly 30 years, Jody, and to my precious children, Landon, Logan, Luke, and Lexi: thank you for providing support and encouragement along the way. Thank you for sticking by me and my crazy dreams to earn a second doctorate. I would not have accomplished what I have without you. I am thankful daily for my tribe.

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List of Abbreviations

Association of Christian Schools International (ACSI)

Coronavirus-2019 (COVID-19)

Overall Teacher Efficacy (OTE)

Joint Completion (JC)

Decentralized Interaction (DE)

Mutual Skill Development (MSD)

Emotional Support (ES)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study is to examine the relationship between Christian school administrators' shared leadership practices and teacher efficacy during the COVID-19 pandemic. Chapter One provides background information regarding shared decision making during a time of crisis. A historical overview is provided to explain how the research on shared decision making has evolved over time. The theories that drive the body of literature are explained. The chapter then presents the problem statement and the purpose of this study. The chapter concludes with a discussion of the significance of this research, followed by a list of relevant definitions.

Background

There has never been a more critical time in education for educators to adapt their teaching styles and practices than during the COVID-19 pandemic. The pandemic affected every area of people's lives, but the education field was the most impacted (Öçal et al., 2021). The pandemic shook the educational system and school leaders had to scramble to quickly devise a plan to allow students to be educated during a global shut-down (Bansak & Starr, 2021). Educators had to take quick action to develop alternative ways to continue teaching students when the traditional face-to-face school setting was no longer an option. The pandemic transformed education and forced school leaders to meet students' needs in a unique way (Iivari et al., 2020).

Educators have always sought innovative pedagogical practices to keep up with changing educational trends and ever-evolving technology. Christensen et al. (2011) refers to these changes in industry as "disruptions" (p. 44). Disruptive innovations emerge out of a need to make services and products more readily available and accessible. However, in the spring of 2020, educators across the globe faced a historic disruption when the COVID-19 pandemic shut

down schools and forced school leaders and teachers to re-think the way they educated students (Kaden, 2020). This disruption spiraled educators into quick action. School leaders had to offer innovative ways to make school accessible to students in the midst of mandatory quarantines, government stay-at-home orders, closed school buildings, and a deadly disease spreading across communities. This dilemma was particularly difficult for private Christian schools who are not supported by government funding. For private organizations to continue to serve their students and remain financially stable, school officials had to adapt their services and make them accessible to students (Swaner & Powell, 2020). Having never faced this unprecedented dilemma before, educators began to collaborate with local stakeholders, medical professionals, and educational experts to create plans to offer flexible remote learning and to safely re-open schools for the fall of 2020.

Teachers were faced with an almost impossible task of educating students in the midst of a global pandemic. For the fall of 2020, a vast majority of public schools in the southeastern United States transitioned their students to fully online learning or used a hybrid model to reopen their schools, where students were on campus part-time to allow for social distancing. Most public-school districts within the United States did not allow their public schools to open full-time at full capacity when the 2020-2021 school year began (Irwin et al., 2021). However, the majority of Christian schools planned to reopen fully with on campus, face-to-face instruction (88.2%) and no delayed starts (Swaner & Powell, 2020). For Christian schools to open their campuses at full capacity, unprecedented planning and collaboration was necessary to develop new plans and policies to keep their students safe.

The COVID-19 pandemic compelled school leaders to collaborate and include its stakeholders (school leaders, parents, teachers, students, and community members) in shared decision making. The crisis emphasized the need for “better cross-sector collaboration among

schools, universities, nonprofit organizations, and others” (Berry, 2020, p. 15). Educators quickly pulled together key people within their communities to engage in a high degree of shared decision-making and participatory leadership (Arnett & Waite, 2020). Public and private academic programs across the United States came together to make decisions that would lead to the successes of their students and staff during a world crisis (Brazeau & Romanelli, 2020). Educators integrated school and community resources to respond to the crisis, and they united community partners and agencies to work together to support the school environment (Fantigrossi, 2020). School teachers during the pandemic witnessed a high level of home and school collaboration, which created additional opportunities for student success (“What CEC Member Teachers,” 2020).

Previous research on shared leadership demonstrates a positive relationship between shared decision making and a team’s performance (D’Innocenzo et al., 2016; Sunaguchi, 2015). Additionally, shared leadership has a positive effect on job satisfaction (Banjarnahor et al., 2018). Teachers desire to be a part of decision-making, and they feel supported and trusted when they are asked to collaborate (Price & Moolenaar, 2015). However, teachers believe they do not get frequent opportunities to participate in leadership decisions, even though they want to provide input (Sarafidou & Chatziioannidis, 2013). Moreover, research demonstrates the importance of shared leadership during a time of internal and external crises (Jäppinen, 2017). D’Innocenzo et al. (2016) argue there is a lack of current research on the magnitude of the positive effects of shared leadership, and more research needs to be conducted.

Historical Overview

The idea of shared leadership was first noted in research in 1924 by Mary Parker Follett. Follett (1924) was a scholar and pioneer in management theories (Damart & Adam-Ledunois, 2017). Follett (1924) recognized that in particular situations, people followed someone who was

not the appointed leader. She referred to this collaborative interaction as “law of the situation” (Follett, 1924, p. 33). She believed leaders should network, study the complete situation, and share power with workers. Her forward thinking in collaborative leadership established her as one of the first management practitioners who recognized early the power of shared leadership (Damart & Adam-Ledunois, 2017). However, it was not until the 1990s that shared leadership became increasingly researched (Avolio et al., 1996; Matranga et al., 1993). During this period, schools were using shared decision-making models to reform and improve schools (Johnson & Pajares, 1996). Scholars recognized that a top-down model of leadership would not be sufficient to advance education at the turn of the 21st century (Spaid & Parsons, 1999). It is no longer expected for a school principal to carry the weight of managing and developing a school alone (Döös et al., 2018). Collaborative leadership has become the norm in schools in recent years (Huggins, 2017).

Formal definitions of shared leadership emerged in literature in the 2000s (Fletcher & Kaufer, 2003; Hoch & Kozlowski, 2014; Pearce & Sims, 2002). Ensley et al. (2006) defined shared leadership as a “team process where leadership is carried out by the team as a whole rather than solely by a single designated individual” (p. 220). The term shared leadership became synonymous with distributive leadership and collaborative leadership (Goksoy, 2016; Hallinger & Heck, 2009). By the mid-2000s, researchers recognized the important relationship between shared leadership and organizational improvement. However, the literature was not extensive and warranted further investigation (Harris et al., 2007).

As shared leadership became a normal practice in education in recent years, more attention has been placed on the effectiveness of shared leadership. Empirical data over the past ten years has shown significant positive outcomes on team performance when shared leadership practices are employed (Nicolaidis et al., 2014). Additionally, the research on shared leadership explored

leadership teams, the sources of shared leadership, and the roles of team members in collaborative opportunities (Sunaguchi, 2015). Recent research on effects of shared leadership on teacher efficacy demonstrate shared leadership is a significant predictor of job satisfaction and a teacher's commitment to continue with the organization (Pietsch, Tulowitzki, & Koch, 2019). A study conducted by Sun and Xia (2018) revealed that shared leadership practices, at the classroom and school-wide levels, produced significant positive effects on teacher job satisfaction. In this study, the researchers analyzed data from the Teaching and Learning International Survey (TALIS), which surveyed 200 schools in 34 countries, including a total of 117,876 teachers. Statistical analysis revealed teachers who had high perceptions of shared and distributed leadership reported a high level of teacher self-efficacy. Moreover, a significant positive relationship existed between shared leadership and teacher job satisfaction.

Social Context

This research has meaningful implications on improving communities and society. By understanding the impact of shared leadership practices during a crisis, school administrators can adapt their leadership practices. Administrators' effective leadership practices directly relate to school outcomes (Sun, Chen, & Zhang, 2017; Tan, 2018). The COVID-19 pandemic provided an avenue and urgency for schools to advance in their efforts to provide accessible education to all students. School leaders had to quickly make changes to the way they provided education, including preparing their campuses with the technology to make education accessible for all students and quickly training their teachers on these new procedures. This research can produce new data to aid schools in advancing their leadership capacities, particularly in crisis settings.

Moreover, research on shared leadership in Christian schools during a crisis can help sustain and advance the mission of Christian education. The mission of ACSI accredited schools is to "prepare students academically and inspire them to become devoted followers of Jesus

Christ” (ACSI, 2020). Christian schools desire to contribute to the public good by developing students and staff through transformative teaching and professional development (ACSI, 2020). For Christian schools to accomplish their mission and contribute to the good of society, they need to be adept in effective leadership practices during crises and prepared to make necessary changes to their programs and management practices. Student enrollment in private schools has decreased from 1999 to 2017 (NCES, 2020). With the future of private education at risk, Christian school leaders need to understand the effective leadership practices that will contribute to the success of their school, thereby allowing them to continue fulfilling their mission.

Theoretical Framework

For school leaders to successfully influence changes within their organizations, they need to be adept in transformational leadership practices. (Sun et al., 2017). Transformational leadership has the capacity to successfully transform schools when change is necessary. Sun et al. (2017) describe a transformational leader as a “change agent” (p. 12). Therefore, one of the theoretical frameworks driving this research derives from transformational leadership theory (Burns, 1978). Burns (1978) desired to transform the idea of leadership as primarily dominant and powerful. He valued human relations and people’s ability to engage each other. Transformational leadership theory focuses on participatory practices. The ideals of both the leader and the follower are valued. Transformational leadership highly engages members of the organization (Leithwood & Sun, 2012). Transformational leaders develop shared goals, develop people, redesign the organization by enabling collaboration, and improve the instructional program (Leithwood & Sun, 2012).

This study also recognizes the theories that help consumers understand disruptive change. Disruptive Innovation Theory aids the researcher in understanding the implications of this study in light of the disruptions caused by a global pandemic. Christensen et al. (2011) introduced a

business theory that explains why organizations succeed or struggle with innovations. In an industry, a disruption occurs when an innovation emerges that interrupts the market's planned, normal trajectory. The innovation is successful because it is simple, affordable, and accessible to its consumers. In a business sense, a company would produce a disruptive product or offer innovative opportunities to meet the needs of its consumers. The new innovative business model disrupts the old systems (Christensen et al., 2011). Moreover, a response strategy emerged that suggested when companies are faced with a competing disruptive innovation, they should establish teams to create their own innovative product and disruptive opportunity (Christensen et al., 2018). According to Vlachopoulos (2020), the magnitude of school closures due to COVID-19 across the globe is an unparalleled "educational disruption" (p. 16) that could threaten children's right to an education. The COVID-19 crisis provides an opportunity for a disruptive innovation.

In conclusion, the COVID-19 pandemic provided a unique opportunity for school leaders to engage in shared leadership practices. Shared leadership is not a new phenomenon; it has been recognized over the past two decades as a leading leadership model for improving schools (Johnson & Pajares, 1996). The researcher has a unique opportunity to explore shared leadership during a global crisis.

Problem Statement

Shared leadership has been recognized in literature and examined in research over the past 100 years. The current body of literature acknowledges the positive outcomes of a leaders' collaborative and transformative leadership styles. Shared leadership produces more satisfied and better performing teachers (D'Innocenzo et al., 2016). Research demonstrates that shared leadership contributes to teacher efficacy (Demir, 2008). However, there is a lack of research on teacher efficacy during implementation of innovative programs or disruptive responses (Wilcox

& Lawson, 2018). This research finds its roots in these previous studies and expands on their recommendations to explore shared leadership and teacher efficacy during disruptive innovations. Moreover, there is no current research on the relationship between shared leadership and teacher efficacy in Christian schools during a pandemic. Previous researchers lacked the opportunity to explore shared leadership during a global crisis, and this unexamined population deserves to be examined. The body of research on shared leadership focuses little attention on the external dynamics that contributed to the need for shared leadership. This study provides a historical opportunity to fill this gap in research. The problem is that shared leadership and teacher efficacy have not been thoroughly examined in Christian schools during a crisis, particularly a global pandemic that demands substantial innovative changes in how schools educate students.

Purpose Statement

The purpose of this quantitative correlational study is to examine the relationship between Christian school administrators' shared leadership practices and teacher efficacy during the COVID-19 pandemic. The study seeks to explore the impact of shared leadership (as measured by the Shared Leadership Perception Scale) on teacher self-efficacy (as measured by the Teacher Sense of Efficacy Scale). More specifically, the researcher seeks to determine if the multiple dimensions of shared leadership (predictive variables) have a predictive value on teacher efficacy (criterion variable). Teacher efficacy is defined as the confidence teachers have in their ability to perform tasks (Sun, Chen, & Zhang, 2017). Shared leadership is a collaborative process in which power is shared with employees in order to meet organizational and individual goals (Goksoy, 2016; Hallinger & Heck, 2009; Pearce & Conger, 2003). The four predictor variables of shared leadership that will be examined are:

- Joint Completion of Tasks – Team members share in establishing goals, framing the vision, diagnosing the problem, accountability, decision making, resource allocation, team actions, team obligations, and sharing of information.
- Mutual Skill Development – Team members learn new skills from each other and help their colleagues develop their skills.
- Decentralized Interaction Among Personnel - Team members do not have a hierarchy nor a title. Each person is equal. No one person makes all the decisions, and everyone feels united.
- Emotional Support – Team members encourage each other, are patient with each other, and they feel a relational connection.

It is important to understand if a correlation exists between shared leadership practices and teacher efficacy during a global crisis. Administrator and teacher responses to the questionnaires will be analyzed to determine if a relationship exists. The participants for the study will be drawn from a convenience sample of high school teachers and administrators employed at Association of Christian Schools International (ACSI) member schools in the southeast region of the United States (Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia) during the summer semester of the 2022-2023 school year. The goal of the study is to examine the relationship between shared leadership and teacher self-efficacy.

Significance of the Study

This study will add to the existing body of knowledge on shared leadership and provide data that can be used to improve education and help sustain Christian schools during a crisis. This topic is worth pursuing because Christian schools nationwide have experienced a decrease in enrollment since 2006 (ACSI, 2017). The COVID-19 pandemic adds to the struggle for

Christian schools to thrive. Therefore, educational leadership and teacher efficacy during the pandemic are important to study because the future of Christian education is at stake. Research can produce valuable evidence to assist school leaders in best leadership practices to keep Christian schools open (Ewert, 2013). The data derived from this study will assist Christian school leaders in understanding how to lead through adversity and use disruptive innovations to advance their organization. Disruptive innovations provide an industry with a “competitive response” (Christensen et al., 2018), and Christian school leaders need to understand how to use disruptions to advance their school’s mission.

This research also further examines the relationship between shared leadership and teacher efficacy. For schools to successfully implement change, leaders and followers must have a “shared vision for change” (Heck & Hallinger, 2010, p. 228). Shared leadership produces improved school outcomes (Heck & Hallinger, 2010). Moreover, teachers who work in a collaborative environment are more innovative and are more committed to the profession (Waller, 2014). Teacher efficacy relates to teachers’ confidence and their persistence in the classroom to influence change. Teacher efficacy is impacted by leadership qualities such as decision-making processes (Wilcox & Lawson, 2018). Wilcox and Lawson (2018) emphasized that self-efficacy is prominent “when teachers persist in the face of short-term adversity, disappointing results, and the formidable challenges of adapting personal and team performances in response to innovation requirements and demands” (p. 188). It is important to understand the relationship between shared leadership and teacher efficacy in the midst of the challenges caused by a global pandemic.

Additionally, the majority of literature on effective leadership practices has been conducted in public schools (Harrison & Allen, 2015). There is limited research on school leadership in the setting of Christian private schools. Studies that have been conducted in the

Christian school setting reveal that Christian school leaders view themselves primarily as spiritual leaders, with a focus on family values and helping students grow in a relationship with Christ (Harrison & Allen, 2015). To continue fulfilling their important mission, Christian school administrators must continue to develop themselves as leaders and understand how to lead a school through an unprecedented crisis. This research will provide evidence to assist Christian school leaders with their mission.

Although this study will focus on the southeastern ACSI schools, the data is important for all Christian schools across the nation. The COVID-19 pandemic spread quickly across America, and all Christian schools in the nation were faced with the same dilemma. Educators quickly had to adjust their modes of education to make schooling accessible to students. This study can also be beneficial for schools who may face future additional crises.

Research Question

This study seeks to answer the following research question (RQ):

RQ1: How accurately can teacher efficacy be predicted from a linear combination of the shared leadership domains of Christian school administrators?

Definitions

1. *ACSI* – The largest Christian school association in the United States that supports Christian education by providing resources, training, and accreditation for Christian schools (ACSI, 2018).
2. *Administrator* – A school site manager and leader who is responsible for the supports for teaching and learning (Rigby et al., 2017).
3. *Collaboration* – Educators communicating and working together as a team to make coordinated decisions (Johnson et al., 2007).

4. *COVID-19* – A novel and deadly coronavirus that developed in Wuhan, China, in December 2019, and resembled viral pneumonia (Huang et al., 2020).
5. *Decentralized Interaction Among Personnel* – A shared leadership domain in which team members do not have a hierarchy nor a title. Each person is equal. No one person makes all the decisions, and everyone feels united (Wood, 2005).
6. *Disruptive Innovation Theory* – “Explains why organizations struggle with certain kinds of innovation and how organizations can predictably succeed in innovation” (Christensen et al., 2011, p. 45).
7. *Distributive Leadership* – “the sharing, the spreading, and the distributing of leadership work across individuals and roles throughout the school organization” (Huggins, 2017, p. 3).
8. *Efficacy* – “a belief about one’s own ability, or the ability of one’s colleagues collectively to perform a task or achieve a goal” (Sun et al., 2017, p. 12).
9. *Emotional Support* – A shared leadership domain that describes when team members encourage each other, are patient with each other, and feel a relational connection (Wood, 2005).
10. *Joint Completion of Tasks* – A shared leadership domain examining when team members share in establishing goals, framing the vision, diagnosing the problem, accountability, decision making, resource allocation, team actions, team obligations, and sharing of information (Wood, 2005).
11. *Mutual Skill Development* – A shared leadership domain examining the extent team members learn new skills from each other and help their colleagues develop their skills (Wood, 2005).
12. *Shared Decision Making* – The process in which educational decisions are made based on

shared input from teachers (Johnson et al., 2007).

13. *Shared Leadership* – “a team process where leadership is carried out by the team as a whole rather than solely by a single designated individual” (D’Innocenzo et al., 2016, p. 1967).

CHAPTER TWO: LITERATURE REVIEW

Overview

Chapter Two begins with the theoretical framework for this study. Transformational leadership theory and disruptive innovation theory provide the unique lenses that inform the literature on shared leadership and its effects on teacher efficacy in Christian schools. Transformative learning theory is a positive leadership theory that encourages participatory practices among colleagues. Disruptive innovation theory purports that a new innovation can interrupt the traditional market and provide a simpler, more accessible product or service. Next, the chapter provides an extensive review of current literature on shared leadership, teacher efficacy, and Christian education. Lastly, the gaps in the research surrounding shared leadership and teacher efficacy are examined.

Theoretical Framework

The theoretical framework driving this research derives from two theories: Transformational leadership theory (Burns, 1978) and disruptive innovation theory (Christensen et al., 2011). Both theories help shape this research and provide the reader with an understanding of the current literature on shared leadership and its outcomes. Moreover, these theories assist educators with the understanding of how to lead Christian schools through a time of crisis, specifically the COVID-19 pandemic.

Transformational Leadership Theory

James MacGregor Burns brought the mainstream's attention to transformational leadership theory in 1978. Burns was a historian, a Pulitzer Prize recipient, and an authority on leadership. He believed society lacked a universal leadership theory that could drive inspiring leadership practices. Burns alleged that politics had tainted the definition of leadership with

negativity, and he desired to generate a positive leadership theory based on integrity and authenticity (Burns, 1978).

Prior to Burns' leadership theory, prominent leadership theories focused on the specific traits or skills of leaders. One of the earliest leadership theories was Carlyle's (1841) great man theory, which proclaimed "the history of the world is but the biography of great men" (Carlyle, 1841). This theory explains that great leaders are heroes who are born with extraordinary characteristics that set them apart from all others. Great leaders intuitively possess abilities and skills that change history. Likewise, trait theory of leadership asserts that qualities such as personality and intelligence separate the leaders from the followers. This theory claims that not everyone can rise to leadership, as leaders are born with specific traits that set them apart (Derue et al., 2011). However, the focus of leadership theories began to transition toward the needs of the followers in the mid twentieth century. Hersey and Blanchard's situational leadership model rose in popularity in 1969. Situational leadership theory recognizes that leadership styles need to be fluid and change as the needs of the followers change (Raza & Sikandar, 2018). In this model of leadership, leaders change their management styles according to the situation their followers are faced with.

More than previous leaders, Burns (1978) considered the needs of the followers and redefined leadership. He claimed that the best leaders are those who inspire team members to come together. He understood that people will follow leaders who inspire them. He valued human relations and people's ability to engage each other. Burns (1978) asserted that "transformational leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 20). Transformational leadership theory focuses on participatory practices. The leader and the follower's goals and ideas are equally valued. Burns desired to see the engagement between

leaders and followers as more than transactional, more than merely exchanging one thing for another. Transformative leaders understand the needs and motives of their followers, and they engage their followers holistically in an attempt to satisfy their needs. Followers become leaders, and leaders become moral agents. Moreover, Burns (1978) asserts that transformative leadership ultimately becomes a moral practice, as the level of conduct and moral ambition is raised as both the leader and the follower aspire to perform above expectations. Although Burns (1978) was writing in reference to political leaders, his theory of transformative leadership informed scholars across many organizations.

One notable scholar who spent his career further developing Burns' theory of transformative leadership was Bernard Bass. Bass first published his insight of transformational leadership theory in 1985. Bass believed transformational leadership motivates followers to perform above expectations and allows them to reach their full potential. Bass and Avolio (1990) categorized transformational leadership practices into four factors, which they called the 4 I's: Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration. These four categories are defined as follows:

- *Idealized Influence (II)*. These leaders are admired as role models and are highly respected by their followers. Followers trust the leaders and aspire to be leaders just like their mentors. Leaders provide a high sense of belonging in the organizational culture, and followers buy into the vision. The follower's needs are priority, and the leader exemplifies ethical leadership.
- *Inspirational Motivation (IM)*. The leaders inspire and motivate the followers by communicating clear expectations of the future of the organization and by providing challenges. These leaders raise company morale and motivate followers with enthusiasm. These leaders are encouragers and motivators.

- *Intellectual Stimulation (IS)*. These leaders challenge the followers to look at challenges in new ways. They inspire the followers to be innovators and thinkers who can approach new problems with creativity. Followers are not criticized for mistakes, but they are encouraged to participate in problem solving.
- *Individualized Consideration (IC)*. These leaders become mentors and develop their followers by paying attention to each person's needs. Leaders know their followers personally, and diversity is valued. These leaders listen carefully to their followers' concerns, and they help develop their team members to their full potential. The organizational climate is supportive and diverse.

To provide a measure of these four factors of transformational leadership, Bass and Avolio (1990) created a survey instrument called the multifactor leadership questionnaire (MLQ-5X), which was later revised in 1995. Throughout his publications, Bass and Avolio (1993) emphasized that transformational leaders begin with the assumption that people are trustworthy, unique, and purposeful. Therefore, complex problems are solved at the lowest level of the organization. Furthermore, Bass (1998) asserted that transformational leadership was the key to leading organizations through difficult times, especially during "times of crises, uncertainty, volatility, and turbulence" (p. 28). During times of change, transformational leaders can help their followers view the uncertainty as a time of opportunity and not a threat. For that reason, transformational leadership theory has become one of the most influential contemporary leadership theories (Yahaya & Ebrahim, 2016).

Many researchers continued the work of Burns (1978) and Bass and Avolio (1990) and applied the theory to educational settings. Leithwood (1994) found that transformational leadership allowed school leaders to navigate schools through times of change and restructuring. Teachers are the primary group that direct changes and innovations in schools; therefore, their

readiness to change is important to research. Jeong et al. (2016) studied teachers' openness to change when moderated by transformational leadership. In their study, they surveyed 1886 teachers in 59 high schools. The results reveal a positive relationship between principals' transformative leadership styles and teachers' openness to change. The researchers purport that teachers are more willing to change when their leaders involve them in the decision-making process, provide them with information, and give them individual attention, all of which are attributes of transformative leadership.

Moreover, H. Wang et al. (2017) affirms that transformational leadership is positively related to employee adaptability. After surveying 185 pairs of employees and employers, the researchers found that transformational leaders guide employees through change by motivating them to face challenges, seek resources, and ask for help. Transformational leadership creates an environment where employees are willing to learn new skills and be innovative. Strong transformational leadership is a prerequisite for school reform and improvement (Dou et al., 2017). Transformative leaders create a culture of trust and commitment, which contributes to school improvement. Transformative leaders motivate others to learn and increase teachers' willingness to improve their teaching practices (Eliophotou-Menon & Ioannouz, 2016).

Transformational leadership has a significant positive impact on teacher satisfaction and overall school health (Eliophotou-Menon & Ioannouz, 2016; Korkmaz, 2007; Ripki et al., 2019). Recent research continues to confirm the positive effects transformational leadership has on job satisfaction. Maheshwari (2021) studied the effects of transformational and transactional leadership on teachers' job satisfaction. Data was collected from 144 high school teachers who completed the Multifactor Leadership Questionnaire (MLQ-5X) to measure the perceived leadership style of their principals and the Job Satisfaction Survey (JSS) to measure their overall satisfaction. The results revealed a significant positive relationship between transformational

leadership and job satisfaction, while transactional leadership was negatively related to school culture and teacher job perceptions. Likewise, Dou et al. (2017) surveyed 528 teachers and 59 principals to examine the relationship between principal leadership, teacher job satisfaction, and organizational commitment. Their data analysis shows a positive relationship between transformational leadership, job satisfaction, and organizational commitment. The results of this study affirm the significant impact principal leadership has on teacher outcomes and school success.

Furthermore, principals who employ transformative leadership practices directly influence the attitudes of their teachers in a positive way. Thomas et al. (2020) studied the impacts of transformative leaders on 292 first-year teachers. The researchers found the principals leadership styles significantly impacted beginning teachers' attitudes. Transformative leadership positively influenced the teachers' motivation, commitment, and job satisfaction. The extent that first-year teachers perceive transformational leadership practices is directly related to their motivation to teach and stay in the profession.

Student performance is also positively related to transformational leadership practices. Kwan (2020) examined the leadership practices from 177 high schools as they relate to student performance. He specifically examined the effects transformational leadership and instructional leadership had on the dimension of student outcomes, as measured from school performance scores reported to the Department of Education. The results of this study confirm the positive effects transformational leadership has on student outcomes. Instructional leadership alone does not produce improvement in student achievement. Likewise, Pinto et al. (2019) studied the influence of principals' transformational leadership on student performance. Their research reveals that transformative leaders indirectly affect student outcomes. Principals who practice

transformative leadership motivate teachers to improve their teaching practices, thereby improving student performance.

Additionally, transformational leadership improves student performance when teachers are seen as the transformative leaders (Day et al., 2016; Sebastian et al., 2017; Wenner & Campbell, 2017). By empowering staff, principals develop a collective capacity that produces greater outcomes and increases influence across the school (Li & Liu, 2020). Teachers are empowered as leaders who influence their colleagues to increase student outcomes. Teacher leadership is collaborative and transformative, and it results in improved student outcomes. Li and Liu (2020) investigate the effects of transformative leadership on student outcomes on a more integrated level, focusing on the effect teacher leaders have on student achievement. Data was collected from 116 schools. Principals and teachers answered surveys to determine their level of transformative leadership, and standardized testing scores were collected from 5000 students. Statistical analysis revealed that transformational leadership was significantly related to teacher leadership. Teacher leadership was significantly and positively related to student performance. Transformative leadership that empowers teachers as leaders positively impacts student achievement.

Similarly, Boberg and Bourgeois (2016) studied the effects of integrated transformational leadership on student achievement. The researchers analyzed survey data collected from 569 teachers and testing data from 5392 students in charter schools in the south-central area of the United States. The results demonstrate an indirect relationship between principal transformative leadership and student outcomes. Principal leadership directly affected teachers' collective capabilities, their extra effort, and self-efficacy. The effects of the principals' transformative leadership on student reading and math scores were directly mediated through the teacher

variables. This research demonstrates the importance of transformative and collaborative leadership.

Consistently in the literature, teachers prefer transformational leadership over other leadership styles (Hauserman & Stick, 2013; Thomas et al., 2020). Research continues to support the positive effects of transformational leadership theory on school climate, teacher attrition, and student performance (Balwant et al., 2019; Camps & Rodriguez, 2011; Kwan, 2020; Thomas et al., 2020). Leithwood (1994) argues that transformational leadership should be required in principals' training programs.

Disruptive Innovation Theory

This study also recognizes the theories that help leaders direct their organization during crises and disruptive change. Disruptive innovation theory (Christensen et al., 2011) aids the researcher in understanding the implications of this study in light of the disruptions caused by a global pandemic. Christensen et al. (2011) introduced this theory as a business model to help organizations succeed with innovations and changes in their industries. In an industry, a disruption occurs when a new product is developed that interrupts the market's normal trajectory by providing a new simple and affordable way to meet consumer needs. This new innovative business model disrupts the old systems (Christensen et al., 2011). Christensen et al. (2011) suggests that when a competitive company produces an innovative product that disrupts the market, the opposing company should establish teams to create their own innovative disruptive opportunity (Christensen et al., 2018).

Christensen (1997) first introduced disruptive innovation in his book *The Innovator's Dilemma*, which addressed why good businesses fail to thrive during market changes and technological advancements. Companies such as Sears Roebuck and IBM were well managed companies who lost their competitive advantage by ignoring the rise of competitors with lower-

cost and simpler products. Christensen (1997) provides a set of rules that managers can follow to lead their companies through innovations. Innovations are referred to as changes in the organizations' technologies. Christensen (1997) defined technologies as the "processes by which an organization transforms labor, capital, materials, and information into products and services of greater value" (p. 9). Every organization has technologies, such as products they produce or services they offer.

Sustaining and Disruptive Technologies

Christensen explains that a dilemma occurs when there are disruptions in the market. Sustaining technologies are new technologies that improve products without changing the business model (Powell et al., 2015). Sustaining innovations lead companies on an expected trajectory in their given market (Horn & Mackey, 2011). These innovations sustain a company's profits and success. On the contrary, disruptive innovations develop into a new business model that interrupts the current trends. Disruptive innovations may initially lead to a decrease in performance and provide challenges for managers and resource allocations (Powell et al., 2015). According to Christensen (1997), disruptive technologies provide a cheaper, simpler, and more convenient product but with an initial smaller profit margin. While the disruptive technology starts out initially as an inferior product, it eventually improves and replaces the mainstream product because of its convenience and affordability. Research on disruptive innovation demonstrates that when faced with a disruption, organizations should create an additional leadership team at corporate level to gather disruptive innovation ideas and implement them (Christensen & Raynor, 2003). Stakeholders who are in direct contact with the market are a valuable part of the new leadership team. Middle managers are more likely to put their efforts into sustaining innovations instead of disruptive in order to sustain their current positions, while

founders are more likely to take risks (Yu & Hang, 2010). Disruptive innovation also recognizes how a lack of financial resources hinders some disruptive innovations.

Disruptive innovation has been applied to the educational setting to help schools manage innovation and help them improve. Christensen (2011) published his seminal work: *Disrupting Class: How Disruptive Innovation will Change the Way the World Learns* and led the way for educational transformation. Christensen (2011) applied disruptive innovation theory to public schools, and he offered a unique lens to assist educators in ensuring every student has the opportunity to learn. He asserts that schools must individualize and differentiate education. Christensen (2011) advocated for customization and a student-centric approach to instruction. Disruption is positive and can ignite changes in education to make it accessible, simple, and affordable. Educators should take advantage of disruptions and “allow the disruptive technology to take root in a new model and allow that to grow and change how they operate” (Christensen, 2011, p. 12). In education, a disruptive innovation utilizes emerging technologies and provides avenues for students to learn that previous traditional models did not offer (Powell et al., 2015). These innovative avenues to learning disrupt the way schools conduct business but lead to more individualized and customized instruction. These innovations can gradually improve and change the way learning takes place (Horn & Mackey, 2011; Trybus, 2018).

Experts also warn that once a disruptive innovation is introduced into education, it should not be redefined and inserted back into the traditional model. Transformation occurs when the traditional market is left behind and the innovative technology is adopted (Horn & Mackey, 2011). Organizations fall behind when they are so focused on the traditional methods and current customer base that they miss the untapped consumer need that will eventually take over the market (Neuman & Gambrell, 2015). Disruptive innovation completely transforms the organization’s planned trajectory.

Disruptive innovation has informed educators and paved the way for them to be creative in their decision making. For example, disruptive innovation provided an innovative way to educate bilingual students, creating a dual-language program that helps the students learn English while staying fluent in their native language (Neuman & Gambrell, 2015). More recently, educators are working on a disruptive model to answer the problem of children in impoverished countries not having access to schools, teachers, and technology. Global Learning XPrize developed software programs to provide 250 million children across the globe with technology to teach themselves to read and write, without a teacher (Horn, 2020). A new model of schooling is developing that will provide instruction to children in the absence of traditional classrooms and teachers.

The COVID-19 pandemic has caused a global disruption, and the educational system has not escaped its effects. The pandemic's "disruptive impacts have necessitated rapid change" (Carolan et al., 2020). The disruption of the pandemic has provided an opportunity for educators to create innovative avenues to teach their students. Schools across the nation have been forced to move from their traditional model of brick-and-mortar schools to an innovative model of e-learning and flexible schedules (Carolan et al., 2020). According to Johnson (2015), innovative organizations use disruptions to do something different; "They see a need, an empty space waiting to be filled, and they dare to create something for which a market may not yet exist" (p. 163). COVID-19 has provided a disruption that will transform the future of education, content of curriculums, and modes of instructional delivery (Carolan et al., 2020).

These theories have informed the literature on shared leadership practices and teacher efficacy during a crisis. For school leaders to successfully influence changes within their organizations, they need to be adept in transformational leadership practices. Transformational leadership has the capacity to successfully transform schools when change is necessary (Sun et

al., 2017). By considering transformative leadership during a disruptive innovation such as the COVID-19 pandemic, Christian school educators can make necessary changes to their programs and successfully lead their organizations through a crisis.

Moreover, the current research may potentially advance the theory of transformational leadership by providing a unique opportunity for researchers to explore this theory in light of a global crisis. It is important to understand how stress affects transformational leaders and their ability to continually motivate and engage with their followers during an ongoing crisis. Since transformational leadership theory has its roots in moral ambition, this research may expand the idea that transformational leaders and their followers perform above expectations during a crisis because of their desire to contribute to the solution and the well-being of their communities. Additionally, this research can expand disruptive innovation theory by examining the theory within an unplanned, unique dilemma in which the theory can be applied. The COVID-19 crisis provides a monumental opportunity for researchers to gain a deeper understanding of how disruptions can bring about positive change.

Related Literature

Shared Leadership Defined

Shared leadership was first mentioned in research in 1924 by Mary Parker Follett, who was an expert in management theories (Damart & Adam-Ledunois, 2017). Follett (1924) recognized that often people followed someone other than their leader, and she called this phenomenon the “law of the situation” (Follett, 1924, p. 33). Follett (1924) believed in the power of collaboration and the value of sharing power with all employees. In the 1990s shared leadership became widely researched (Avolio et al., 1996; Matranga et al., 1993). During this period, schools were using shared decision-making models to reform and improve schools (Johnson & Pajares, 1996). Scholars recognized that a top-down model of leadership would not

be sufficient to advance education at the turn of the 21st century (Spaid & Parsons, 1999). It was no longer expected for a school principal to carry the weight of managing and developing a school alone (Döös et al., 2018). Collaborative leadership became the norm in schools (Huggins, 2017).

Shared leadership has no universally accepted definition across the literature (Zhu et al., 2018). The term shared leadership became synonymous with distributive leadership and collaborative leadership (Goksoy, 2016; Hallinger & Heck, 2009), making a unified definition for shared leadership more difficult to establish. The most cited definition of shared leadership is “a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group organizational goals or both” (Pearce & Conger, 2003, p. 1). The many definitions of shared leadership describe the collective work of team members in leadership instead of just influence from one individual leader. Moreover, the various definitions in the literature of shared leadership can be categorized into specific themes.

Some definitions of shared leadership focus on the source of leadership, noting that shared leadership specifically emphasizes horizontal influence across team members and not vertical influence from one specified formal leader (Ensley et al., 2006; Pearce & Conger, 2003; Pearce & Sims, 2002). However, research shows that vertical influence, or the traditional top-down model of leadership, can work together with shared leadership teams to increase productivity in new ventures (Zhu et al., 2018). Other definitions of shared leadership focus on the collective unit of the leadership team. This definition does not focus on the formal leader or the individual team members. The emphasis is on the influence of the entire collective team. The authority resides in the group, as defined by Chiu et al. (2016) as “a group-level phenomenon generated from reciprocal reliance and shared influence among team members so as to achieve team goals” (p. 1705).

Another characteristic found in the various definitions of shared leadership focuses on the distribution of leadership. Leadership is disbursed among team members, and the focus is more on the roles of each member. For example, Lord et al. (2017) state, “shared leadership can be viewed in terms of how different individuals enact leader and follower roles at different points in time” (p. 444). This definition emphasizes the distribution of tasks, as contrasted to previous definitions that characterize the team’s group effort as most important.

What is Being Shared in Leadership?

Since there are various definitions and measures of shared leadership, there may be differences in the effect sizes of the outcomes in shared leadership research (Zhu et al., 2018). However, the goal of shared leadership research is to examine what tasks and efforts are being shared, and how these affect the organization’s outcomes. In many studies, a specific leadership style is being shared among team members. This leadership style is frequently that of the formal leader (D’Innocenzo et al., 2016), and can range from servant leadership, transformational leadership, participative leadership and more (L. Wang et al., 2017; Zhu et al., 2018).

In other studies, shared leadership is the process of establishing a time and place for team members to collaborate. By forming working teams, multiple people with specialized knowledge can work together to solve problems. The collaborative teams can be established in an informal way, consisting of team members who do not hold formal leadership roles (Zhu et al., 2018). At other times, the leadership teams are intentionally established by upper management (D’Innocenzo et al., 2016). In a mixed-methods comparative study, Torres et al. (2020) analyzed case study and survey data collected from schools in Denver, Los Angeles, and New Orleans to examine shared leadership practices. In this study, examples of shared leadership common in the schools were: team meetings, vertical and horizontal curriculum alignment, principals’ asking for

input from teachers, and teacher input on school-wide issues such as hiring, scheduling, budgeting, and vision casting.

Shared Leadership Dimensions

The concept of shared leadership is multi-dimensional (Wood, 2005), as detailed on the Shared Leadership Perception Survey (SLPS). This survey is a tool that investigates educators' perceptions of shared leadership. Dr. Michael Wood (2005) developed this survey through a factor analysis of previous leadership questionnaires. From his analysis, multiple dimensions of shared leadership emerged. Specifically, Wood (2005) found four distinct categories of shared leadership. The four dimensions are: joint completion of tasks, mutual skill development, decentralized interaction among personnel, and emotional support.

- Joint Completion – Team members share in establishing goals, framing the vision, diagnosing the problem, accountability, decision making, resource allocation, team actions, team obligations, and sharing of information.
- Mutual Skill Development – Team members learn new skills from each other and help their colleagues develop their skills.
- Decentralized Interaction Among Personnel - Team members do not have a hierarchy nor a title. Each person is equal. No one person makes all the decisions, and everyone feels united.
- Emotional Support – Team members encourage each other, are patient with each other, and they feel a relational connection.

Shared Leadership Outcomes

By the mid-2000s, researchers recognized the important relationship between shared leadership and organizational improvement through team success (Carson et al., 2007; Shipper et al., 2014; Wang et al., 2014). More recent data over the past five years has continued to show the

significant positive outcomes on team performance when shared leadership practices are employed (Nicolaidis et al., 2014; L. Wang et al., 2017). Studies reveal shared leadership increases task performance. Chiu et al. (2016) found that the relational structure of shared leadership led to improvements in a team's performance. In this study, sixty-two work teams answered questionnaires, and data analysis revealed that a leader's humility was positively related to shared leadership, and shared leadership was positively related to team performance. When formal leaders praised the team members and were willing to receive feedback from them, team members became more confident in their work, thereby increasing their performance. Likewise, Mathieu et al. (2015) in a meta-analysis found that team cohesion and unity related positively to shared leadership, which led to increased team effectiveness. Moreover, shared leadership increased employees' extra-role behaviors, organizational citizenship, and their willingness to complete projects (Galli et al., 2017; L. Wang et al., 2017). Additionally, Drescher and Garbers (2016) employed an experimental design to study the effects of shared leadership. In their study, 262 students and 99 employees were asked to respond to scenarios where shared leadership was manipulated. The participants' performance and satisfaction were evaluated. Data analysis revealed shared leadership had a positive effect on the participants' performance and satisfaction. Ultimately, research on effective leadership reveals that shared leadership is more effective in increasing team performance than other factors such as team size, gender, and diversity (Karraker et al., 2017).

Shared leadership also increases team members' creativity and innovation. Liang and Gu (2016) found that shared leadership ignited creativity at the team level and at the individual team member level. In a study by Hu et al. (2017), data was collected from 54 work teams, investigating the relationship between shared leadership and team creativity. They found that conflict within a team decreases team creativity, but high levels of shared leadership practices

mitigate the conflict and allows for the team to be innovative. To further examine the effects of shared leadership on team creativity, Han et al. (2019) conducted a study with 260 college students. The students, working in groups over a semester, interacted with a business in the community to provide a proposal for the business. At the completion of the project, the researchers collected survey data from the students to measure their perceptions of psychological safety, shared leadership, and team creativity during the project. The results indicated that relation-oriented shared leadership promoted creativity within the teams.

Moreover, recent research on effective leadership practices demonstrates shared leadership is a significant predictor of job satisfaction and organizational commitment (Drescher & Garbers, 2016). A study conducted by Sun and Xia (2018) revealed that shared leadership practices, at the classroom and school-wide levels, produced significant positive effects on teacher job satisfaction. In this study, the researchers analyzed data from the Teaching and Learning International Survey (TALIS), which surveyed 200 schools in 34 countries, including a total of 117,876 teachers. Statistical analysis revealed teachers who had high perceptions of shared and distributed leadership reported a high level of teacher self-efficacy. Moreover, a significant positive relationship existed between shared leadership and teacher job satisfaction. More recently, Cobanoglu (2020) investigated the effects of shared leadership on teachers' commitment to their schools. The researcher surveyed 512 elementary and high school teachers by using the Shared Leadership Scale and the Teachers' Organizational Commitment in Educational Organizational Questionnaire. Correlation analysis revealed a significant correlation between shared leadership and organizational commitment. Teachers who are given opportunities to collaborate and share in decision-making are more committed to their schools.

Additionally, in a mixed-methods study, Serban and Roberts (2016) explored the effects of shared leadership on job satisfaction. They defined satisfaction as a "group's shared attitude

toward both its task and the associated work environment. Elements of the work environment which can affect task satisfaction include, among others, the internal environment within the group, the group's leader, the reward system and features of the wider organization” (p. 183). In this experiment, team members worked together to complete a group activity, and they answered a survey after the activity was complete. Shared leadership, team satisfaction, and team performance were measured. The researchers found that team environment and unity correlates to shared leadership, which determines task satisfaction. Likewise, in a qualitative study conducted by Abedini et al. (2018), teachers were found to have high levels of job satisfaction when they were given the opportunity to collaborate with coworkers and participate in shared leadership practices. Moreover, job satisfaction, produced by an environment of shared leadership, improves staff attitudes (Drescher & Garbers, 2016; Serban & Roberts, 2016) and keeps teachers in the profession longer (Torres, 2019).

Shared leadership is directly related to teachers’ commitment to continue with the organization. Pietsch et al. (2019) examined how instructional, transformational, and shared leadership affected teacher job satisfaction and organizational commitment. The researchers analyzed survey data from 3,746 teachers from 126 schools in Germany. The results revealed shared leadership significantly predicted teacher job satisfaction and their commitment to remain with the organization. Shared leadership had a greater effect on job satisfaction and organizational commitment than instructional leadership and transformational leadership at the school level. This study affirms that teachers’ satisfaction and commitment are directly related to the principals’ shared leadership practices.

Studies have also found that shared leadership indirectly affects student achievement by increasing teachers’ academic optimism (Chang, 2011; Hoy et al., 2006; Kösterelioğlu, 2017). Academic optimism is defined as “teachers’ positive belief that they can make a difference in the

academic performance of students by emphasizing academic stance, by being self-confident to overcome difficulties and failures with resilience, and by helping parents and students cooperate” (Hoy et al., 2006). Academic optimism affects the academic setting, thereby affecting student achievement. To explore the relationship between shared leadership and academic optimism, Kösterelioğlu (2017) collected survey data from 321 high school teachers who answered questions on the Shared Leadership Scale, the Academic Optimism Scale, and the Organizational Citizenship Scale. Data analysis revealed that the emotional support dimension of shared leadership was a strong predictor of academic optimism. This study reveals a significant relationship between shared leadership and teachers’ academic optimism.

Additionally, shared leadership of the principal indirectly influences student achievement by influencing the school climate. Sebastian et al. (2016) studied the impact principals have on student outcomes by analyzing teacher survey data and standardized test scores of Chicago elementary students from 2006 - 2013. To determine the link between leadership and learning, the researchers used structural equation modeling. The data analysis showed that the leadership style of the principal was significantly related to student achievement gains, both directly and indirectly. The principal’s leadership was strongly related to the professional community, program quality, and teacher leadership. This study shows that principals can influence student achievement by establishing a school climate that empowers teachers and fosters shared leadership.

More directly, Ingersoll et al. (2018) found a direct link between shared leadership and student achievement, when teachers are the ones empowered to participate in leadership. In a study analyzing data from 900,000 teachers from 25,000 public schools in the United States, the researchers found that shared leadership practices among teachers were significantly and positively related to student achievement, specifically in the areas of math and language arts. The

shared leadership practices among teachers that were strongly related to student achievement included creating high instructional standards, sharing in school improvement plans, and participating in a shared vision, and having more control over student discipline issues. The researchers argue that teachers should have more authority and leadership, since teacher leadership is directly and strongly related to student achievement.

Teacher Efficacy

Teacher efficacy has been studied and measured by educational researchers for over fifty years (Zee & Koomen, 2016). Rotter (1966) emphasized locus of control, and Bandura (1982) based his studies on social cognitive theory. The basis of self-efficacy is that humans have control over actions. People's perception of their environment can be influenced by internal and external reinforcers. Fate is an example of an external control, and a person's actions are internal controls. Therefore, a particular environment can be manipulated by internal and external factors (Zee & Koomen, 2016). Bandura further developed the concept of self-efficacy in his work on social cognitive theory (Morris et al., 2017). He believed that people's beliefs in their capabilities can predict the effort they give. The higher a person's self-efficacy, the more effort they contribute to situations and adversity (Morris et al., 2017). Bandura (1997) asserted that self-efficacy is the most important predictor of human behavior. Bandura (1982, 1997) and Rotter's (1966) work shaped the literature on teacher efficacy.

Teacher self-efficacy is "the beliefs teachers hold about their capabilities to carry out their professional tasks" (Morris et al., 2017, p.796). Teachers have control over what happens in their classrooms, and their self-efficacy affects their motivation (Morris et al., 2017). Teachers with a strong sense of efficacy do not doubt themselves; therefore, they use more effective teaching strategies and suffer less from burnout (Zee & Koomen, 2016). The overall quality of

the classroom environment is elevated when teachers have a high sense of self-efficacy (Bandura, 1997).

From Bandura's (1997) work, Tschannen-Moran and McMaster (2009) identified four dimensions of teacher self-efficacy: verbal persuasion, vicarious experiences, mastery experiences, and the emotional arousal level. Verbal persuasion is the verbal affirmations and encouragement teachers receive from those in authority. Bandura (1997) noted that particularly in difficult times, words of affirmation strengthen a teachers' self-efficacy. The second dimension of vicarious experiences takes place when a teacher witnesses victories and failures of other teachers. Teachers build their confidence to attempt a teaching strategy when they witness it being done by another, or they judge what not to do when they witness a failure. Moreover, the dimension of mastery experiences refers to the teacher's perceptions of his or her own teaching experiences. This dimension is believed to be the most influential. Lastly, the arousal level is the negative or positive feeling a teacher gets when he or she is anticipating a task in teaching. These feelings can include increased heart rate, sweating, or shortness of breath (Ford et al., 2017; Tschannen-Moran & McMaster, 2009;). These dimensions of teacher efficacy have been widely studied in educational research.

Research demonstrates that teacher efficacy affects classroom outcomes. Teaching strategies and instructional behaviors are influenced by teacher self-efficacy (Miller et al., 2017; Zee & Koomen, 2016). Teachers with a higher sense of self-efficacy put forth more effort to help students learn (Qadach et al., 2020). Innovative teaching strategies lead to increased student performance and higher academic scores (Mohamadi & Asadzadeh, 2012; Mojavezi & Tamiz, 2012). In a quantitative correlational study, Mojavezi and Tamiz (2012) analyzed survey data from 80 teachers and 150 high school students. The researchers sought to discover if there was a significant relationship between the students' scores and their teachers' sense of self-efficacy.

Students in group A had teachers with higher self-efficacy, and they outscored students in groups B and C. The study revealed a higher level of teacher self-efficacy was directly related to higher student achievement. Moreover, studies have found that teachers' self-efficacy predicts their relationship with the students, which in turn affects the learning environment and student achievement. Teachers with higher self-efficacy have more positive relationships with students, and positive learning environments are associated with higher student achievement (Holzberger et al., 2014; Reynolds et al., 2017).

Zee et al., (2018) believed further investigation was warranted on the relationship between teacher self-efficacy and student achievement. Zee and his colleagues (2018) conducted a quantitative study, analyzing data from 360 fourth-to-sixth grade students and 49 teachers. The teachers were asked to complete the Teachers' Sense of Efficacy Scale (TSES). The students' achievement scores were analyzed using the official results of their national achievement tests in reading and mathematics. This study was one of the first to investigate the effects of teacher self-efficacy at the individual student level. Results showed that teachers' self-efficacy is positively related to students' reading and math scores.

Additionally, research shows that teacher performance is correlated to high levels of teacher efficacy (Morris et al., 2017). Chen and Chen (2019) conducted a study in which 963 teachers' responses to the Teacher's Sense of Efficacy Scale were compared to their practicum performance scores. This study revealed a significant positive relationship between teacher efficacy and their practicum performance. Likewise, Song et al. (2018) surveyed 481 teachers and found a positive relationship between self-efficacy and job performance. High teacher efficacy raises the quality of the classroom when the teacher feels confident and has an overall feeling of well-being (Zee & Koomen, 2016). Moreover, Miller et al. (2017) collected data from 51 teachers and 427 high school students to analyze the relationship between teacher efficacy

and student perceptions of teacher confidence. High levels of teaching self-efficacy were significantly related to students' confidence and respect of the teachers. Teachers' confidence in their own abilities to teach their content impacts the students' self-efficacy and their classroom performance (Miller et al., 2017).

Teachers with higher levels of self-efficacy report higher levels of job satisfaction (Troesch & Bauer, 2017). In a quantitative study surveying 500 high school teachers, Molero et al. (2019) found that teachers reporting high levels of burn out scored lower on survey items related to teaching efficacy and job satisfaction. High levels of burnout are directly associated with low levels of job satisfaction and commitment. Conversely, empirical data shows that teachers who engage in affective behaviors (i.e. enthusiasm, determination, excitement), have high levels of self-efficacy and high levels of job satisfaction (Burić & Moè, 2020; Taxer & Frenzel, 2018; Thomas et al., 2020).

Burić and Moè (2020) investigated the correlation between teacher self-efficacy, enthusiasm, and job satisfaction by analyzing survey data from 536 high school teachers. Self-efficacy was measured using the Teacher Self-Efficacy Scale, job satisfaction was measured using the Job Satisfaction Scale, while enthusiasm was measured using the Teacher Enthusiasm Scale. Teachers' positive affective experiences were directly and positively related to self-efficacy and job satisfaction. The way teachers feel and behave predicts their teaching efficacy and their satisfaction in their career.

Teacher efficacy and job satisfaction has been researched in relation to school climate. In a longitudinal study, Malinen and Savolainen (2016) investigated the effects of school climate on teacher efficacy and job satisfaction. The 522 teachers selected for this study participated in an intervention focused on improving their school climate. During the intervention, three surveys were sent to the teachers over a year period to collect data on their experience. The surveys

measured their perceptions of school climate, teacher efficacy, burnout, and job satisfaction. Statistical analyses revealed school climate positively affects teacher efficacy and job satisfaction. Moreover, teacher efficacy significantly predicts job satisfaction and burnout, whereas school climate does not directly affect burnout.

To gain a deeper understanding of the relationship between teacher efficacy and job satisfaction, Huang et al. (2021) conducted research that investigated teacher self-efficacy in more than just the teacher's classroom roles. The researchers desired to understand teacher self-efficacy from three different domains: the classroom, teacher-student relations, and school-wide decision making. Survey data from 1,424 teachers in China was analyzed, and the results show a positive correlation between all three domains of self-efficacy and job satisfaction. However, self-efficacy in the areas of teacher-student relations and school decision making were greater predictors of job satisfaction than the classroom teaching duties. Healthy teacher-student relationships produce positive feelings, and in turn increases teacher commitment. Furthermore, in this study, the self-efficacy domain of school decision making was the greatest predictor of job satisfaction. This result is consistent with current literature that teachers desire to participate in shared decision making and have an influence on school policy. Sharing in decisions increases a teacher's sense of belonging and satisfaction.

Specific to this study, research has been conducted on the relationship between teacher efficacy and shared leadership practices. Qadach et al. (2020) found that teachers were less likely to leave the profession if they worked for principals who exhibited shared leadership practices. Additionally, Donohoo (2018) asserted that organizations with higher collective teacher efficacy exhibited shared leadership and teachers naturally took on leadership roles by collaborating and assisting their colleagues. Sun and Xia (2018) analyzed data from the 2013 Teaching and Learning International Survey (TLIS) that was administered to 117,876 teachers worldwide. Sun

and Xia (2018) found that collaborative leadership practices, such as distributed leadership, have a significant positive effect on job satisfaction, which was mediated by teacher efficacy. The authors purport that job satisfaction can be increased as efforts are made by leadership to increase teacher efficacy through collaborative leadership and a collaborative school culture. Liu et al. (2020) further analyzed the TLIS data and found similar results, adding to the evidence of a positive significant relationship between instructional leadership, job satisfaction, and self-efficacy. The results of their study support a stronger relationship between instructional leadership and teaching efficacy than the relationship between distributed leadership and teaching efficacy. However, job satisfaction was more closely related to distributed leadership, suggesting shared decision-making improves teachers' satisfaction in the workforce. Likewise, Yıldız and Şimşek (2016) studied the effects of transformational leadership on job satisfaction and the roles trust and efficacy play in mediating those effects. They found a positive relationship between transformational leadership and job satisfaction. Yıldız and Şimşek's (2016) research adds to evidence supporting the importance of the leader-follower collaboration and relationship.

Furthermore, Goddard and Kim (2018) studied the effects of collaboration on teacher efficacy. They conducted a longitudinal study in the mid-western United States to examine the relationship between collaboration and teacher efficacy. Survey data was collected from 1,623 elementary teachers. The study found a significant direct relationship between teachers' efficacy and collaborative teaching practices. Teachers reported being more thoughtful and challenging in their teaching practices when they were offered opportunities to collaborate.

Teacher efficacy has also been studied in light of disruptive innovations (Sun et al., 2016; Wilcox & Lawson, 2018). Wilcox and Lawson (2018) assert that positive self-efficacy is essential during times of adversity, challenges, or disappointing results. Wilcox and Lawson

(2018) conducted a case study in which they investigated teachers' perceptions of self-efficacy during a time of change in public schools in the United States. Three disruptive innovative programs were being implemented within public schools as part of the Race-to-the-Top policy agenda: common core standards, data-driven instruction, and annual performance reviews. The participants in this study included 143 teachers from eighteen elementary and middle schools in New York. The teachers were identified as either working at typically performing schools or odds-beating, over-performing schools. During interviews over a two-day period, the teachers were asked about their perspectives and experiences during implementation of the three policy changes. Analysis revealed teachers from higher performing schools shared similar levels of stress and exhaustion, but they maintained their resilience due to emotional and social supports provided from their colleagues and leaders. Higher-performing teachers noted the importance of collaboration; they benefited from their leaders showing trust in their professional judgement. Teachers from the lower-performing schools indicated a feeling of restraint from the top-down model of leadership; their instructional pacing and practices were dictated by leaders. This study demonstrates that educational innovations are more successful in a collaborative community where teacher efficacy is high.

Additionally, teacher efficacy has been researched in conjunction with transformational leadership. Thomas et al. (2020) argue that transformational leaders provide support and resources to teachers, thereby increasing their confidence and self-efficacy. The interplay of both transformational leadership and teacher efficacy lead to teacher retention. Additionally, teacher efficacy has been found to be the mediating factor that links transformational leadership to teacher agency, or teachers' initiative toward professional development and continued growth (Polatcan et al., 2021). Polatcan et al. (2021) assert that transformational leaders who inspire teachers increase teacher efficacy and improve teacher performance.

Christian Education

Christian education began in the United States when the Pilgrims came to America in 1620 (Commager, 1968). Education was initially established in the new colony for religious purposes, as the colonist wanted their children to learn the laws and the Bible (Guttek, 1995). *The New England Primer* was the first textbook to be published in America in 1690. This text included an alphabet in poetic form, which included religious verbiage. It also contained a bible verse for each letter of the alphabet and the catechism, which was considered a first-grade text (Barton, 2004). In 1642, The Old Deluder Satan Act was the first public school law, requiring public schools to be established in every community. This law intended for public education to be centered on the Word of God, so students would have the knowledge to not be misled by Satan. Foreign visitors to America noted the distinctly religious element of American public education (Barton, 2004).

Notable institutions of higher education were established by America's founding fathers as seminaries. Harvard is a school founded in 1636 by Congregationalists to train ministers. Many political leaders and founding fathers graduated from Harvard. Graduates of Harvard signed the Declaration of Independence and the Constitution. Harvard proclaimed, through its mottos and student directives, its ultimate goal was for students to know Christ. Students were expected to read the Bible two times per day (Barton, 2004). Additionally, Yale was founded in 1701 as a school to train ministers. Graduates of Yale signed the Declaration of Independence and the Constitution. Famous educational leaders such as Noah Webster graduated from Yale. Like Harvard, Yale's philosophy of education was founded on students knowing Christ as Savior. Yale required students to live a Godly lifestyle (Barton, 2004). Founded by Presbyterians in 1746, Princeton graduated more early leaders than any other school. Graduates of Princeton signed the Declaration of Independence and the Constitution. Princeton required students to

attend daily morning worship services and church on Sundays. Princeton and its graduates trained African Americans and women and initiated education for all people (Barton, 2004).

The Northwest Ordinance of 1787 was America's first federal law establishing public education, written by the founding fathers who wrote the First Amendment (Guttek, 1995). This law encouraged religion in public education, noting religion is essential in establishing good government. Required textbooks during this time included the Old and New Testaments (Barton, 2004). As state and federal support grew the public school system in America in the nineteenth century, religious education still permeated schooling. The McGuffey Readers, some of the most famous texts in the history of America, were textbooks published in the 1830s which included scriptures and Biblical stories. The McGuffey Readers also taught the Ten Commandments to public school students (Barton, 2004). As America continued to grow rapidly after World War II, the federal government funded an educational reform to build larger schools, hire more teachers, and propel American public education as the leading educational system. With the government's influence on education, religious freedoms were taken away. By 1962, public schools were mandated to be secular or religious neutral in the case of *Engle v. Vitale*. During this case, the U.S. Supreme Court ruled that voluntary prayer in public schools was unconstitutional (*Engle v. Vitale*, 1963).

With public education promoting secular theories such as evolution, dualism and postmodernism, the Christian school movement saw tremendous growth in the 1970s (Tozer et al., 2011). Christians desired an educational setting that is distinctly Christian where their children could be educated with a Christian worldview (Guttek, 1995). In 1978, the Association of Christian Schools International (ACSI) was established, which is an organization that supports evangelical schools in America and internationally (ACSI, 2021). Christian education continues to grow in America, with over 4.8 million students attending religious schools (US Department

of Education, 2018). Private schools designated as religious or Christian schools include a variety of denominations, including Catholic, Episcopal, Amish, Assembly of God, Baptist, Calvinist, Church of God, Methodist, Evangelical, Greek, Jewish, Presbyterian, Pentecostal, and Lutheran (US Department of Education, 2018).

The goal of Christian education is to educate students within a biblical worldview. Through an education model embedded with the characteristics of God's kingdom, students will learn to live and act like Christ. Evangelism and discipleship will lead children to personally know Christ and mature into adults who are equipped to serve Him. With this biblical philosophy of education, children will develop a God-centered worldview that recognizes the Bible as the ultimate reality and truth (Schultz, 2015) The purpose of Christian schools is the development the students into the image of God (Horton, 2017). In a Christian school setting, every aspect of school and learning should point students to Christ (Van Brummelen, 2009).

Gap In Literature

An apparent gap exists in the literature concerning leadership practices for Christian schools during the COVID-19 pandemic. Educators have been faced with a novel challenge to quickly innovate and make substantial changes to their programs in order to provide quality education to students during a pandemic. More needs to be known about best leadership practices to help Christian schools navigate through times of implementation and innovation. Effective leadership during the COVID-19 pandemic is a topic that is still developing. This study can provide valuable evidence to support and advance Christian education during this crisis.

This study seeks to advance the literature on shared leadership and teacher efficacy within Christian schools, especially when disruptive changes are taking place. Research can produce valuable evidence to assist school leaders in best leadership practices to keep Christian schools open (Ewert, 2013). This study will assist Christian school leaders in understanding how

to lead through adversity and use disruptive innovations to advance their organization. Disruptive innovations provide an industry with a “competitive response” (Christensen et al., 2018), and Christian school leaders need to understand how to use disruptions to advance their school’s mission, even during a crisis. Additionally, the majority of literature on effective leadership practices has been conducted in public schools (Harrison & Allen, 2015). There is limited research on effective school leadership in the setting of Christian private schools, and this study seeks to fill this gap in research.

Summary

In conclusion, shared leadership has been an important topic of educational research and has been widely studied. Research has shown the positive effects of shared leadership, including overall organizational improvement (Carson et al., 2007; Shipper et al., 2014; Wang et al., 2014). Studies also show increased creativity and innovation among colleagues when they are engaged in shared leadership (Liang & Gu, 2016). Teachers are more satisfied with their jobs and are more committed to continue with their organizations when they work in an environment of collaboration and shared leadership (Drescher & Garbers, 2016; Pietsch et al., 2019). However, more needs to be discovered about the effects of shared leadership on teacher efficacy in Christian schools, especially during times of adversity. COVID-19 has fundamentally disrupted how children are educated (Ross & DiSalvo, 2020), and additional research is needed to provide Christian school leaders with empirical evidence to drive their decision making through the COVID-19 pandemic.

CHAPTER THREE: METHODS

Overview

Chapter Three explains the design for this study, which examines shared leadership in Christian schools during a pandemic. The research question and hypothesis are presented. The chapter then describes the participants, setting, and instrumentation. The procedures for the study are explained in detail. The chapter concludes by describing the type of statistical analysis used to test the hypotheses.

Research Design

This study employs a quantitative correlational design to examine the relationship between shared leadership and teacher efficacy. The purpose of correlational research is to determine relationships between variables (Gall et al., 2007). Correlational research “measures the degree of association between two or more variables using the statistical procedure of correlational analysis” (Creswell, 2003, p. 60). A correlational research design is most appropriate for this study because the researcher is seeking to determine if the results from two surveys reveal a statistical relationship between shared leadership and teacher efficacy in Christian schools. Gall et al. (2007) explains that correlational research is particularly useful in educational research, allowing researchers to explore the relationships between variables. Correlational statistics will allow the researcher to determine if a relationship exists between shared leadership and teacher efficacy, where the researcher does not influence the independent variable. A non-experimental design is appropriate for this study because shared leadership and teacher efficacy are not phenomena that are appropriate for manipulation in controlled experiments (Gall et al., 2007). Moreover, this study used multiple regression analysis to determine the predictive quality of the relationship between shared leadership domains (predictor variables) and teacher efficacy (criterion variable). The four predictor variables of shared

leadership that were examined are joint completion of tasks, skill development, decentralized interactions, and emotional support. Multiple linear regression that includes multiple predictor variables can effectively be used to evaluate the influence the predictor variables have on the outcome variable (Warner, 2013). In a regression with multiple predictors, the predictive usefulness of each variable can be assessed while statistically controlling for other variables (Warner, 2013).

The four distinct domains of shared leadership used in this study (predictor variables) emerged from Wood's (2005) Shared Leadership Perception Survey (SLPS). Wood (2005) developed this survey through a factor analysis of previous leadership questionnaires. From his analysis, the following multiple dimensions of shared leadership emerged:

- Joint Completion – Team members share in establishing goals, framing the vision, diagnosing the problem, accountability, decision making, resource allocation, team actions, team obligations, and sharing of information.
- Mutual Skill Development – Team members learn new skills from each other and help their colleagues develop their skills.
- Decentralized Interaction Among Personnel - Team members do not have a hierarchy nor a title. Each person is equal. No one person makes all the decisions, and everyone feels united.
- Emotional Support – Team members encourage each other, are patient with each other, and they feel a relational connection.

For this study, high school administrators and teachers in ACSI schools from the southeast region of the United States were asked to answer survey questions. The administrators answered questions on the Shared Leadership Perception Scale and teachers answered the questions on the Teacher Sense of Efficacy Scale. The researcher analyzed the data from the

surveys to determine if shared leadership has a predictive value on teachers' sense of efficacy. Correlational research designs have been used for similar studies that examine the effect variables have on teacher efficacy (Ayllón et al., 2019; Mahler et al., 2018; Senler, 2016).

Research Question

This study seeks to answer the following research question (RQ):

RQ: How accurately can teacher efficacy be predicted from a linear combination of the shared leadership domains of Christian school administrators?

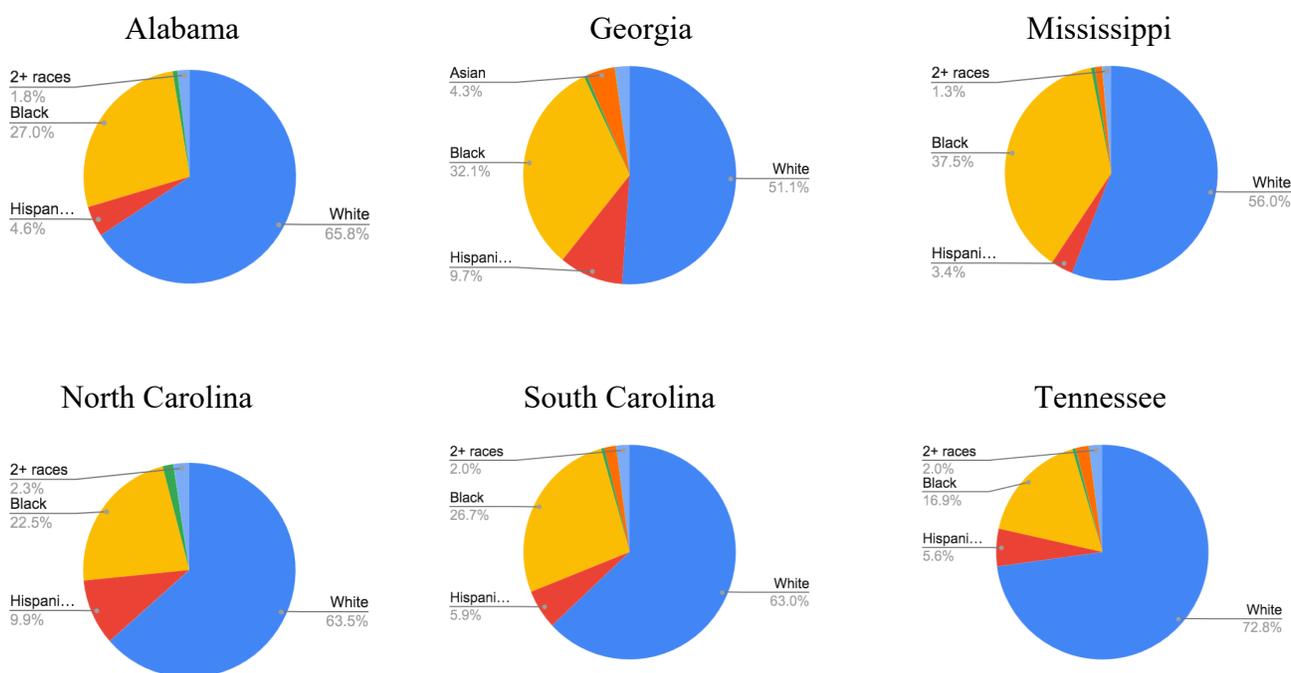
Hypothesis

The null hypothesis for this study is:

H₀: There is no significant predictive relationship between the criterion variable (teacher efficacy) and the linear combination of predictor variables (joint completion of tasks, mutual skill development, decentralized interactions, and emotional support) of Christian school administrators.

Participants and Setting

The population chosen for this study included administrators and teachers employed at Association of Christian Schools International (ACSI) member schools in the southeast region of the United States. ACSI has 244-member high schools in the southeast region of the United States. The southeast region includes the states of Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Demographic information for each state is detailed below in Figure 1.

Figure 1*Southeastern States' Demographics*

High school principals employed in the southeastern ACSI member school have a salary range from \$38,218 – \$57,685 (ACSI, 2018b). Teachers' salaries in ACSI schools range from \$25,145-\$36,642 (ACSI, 2018b).

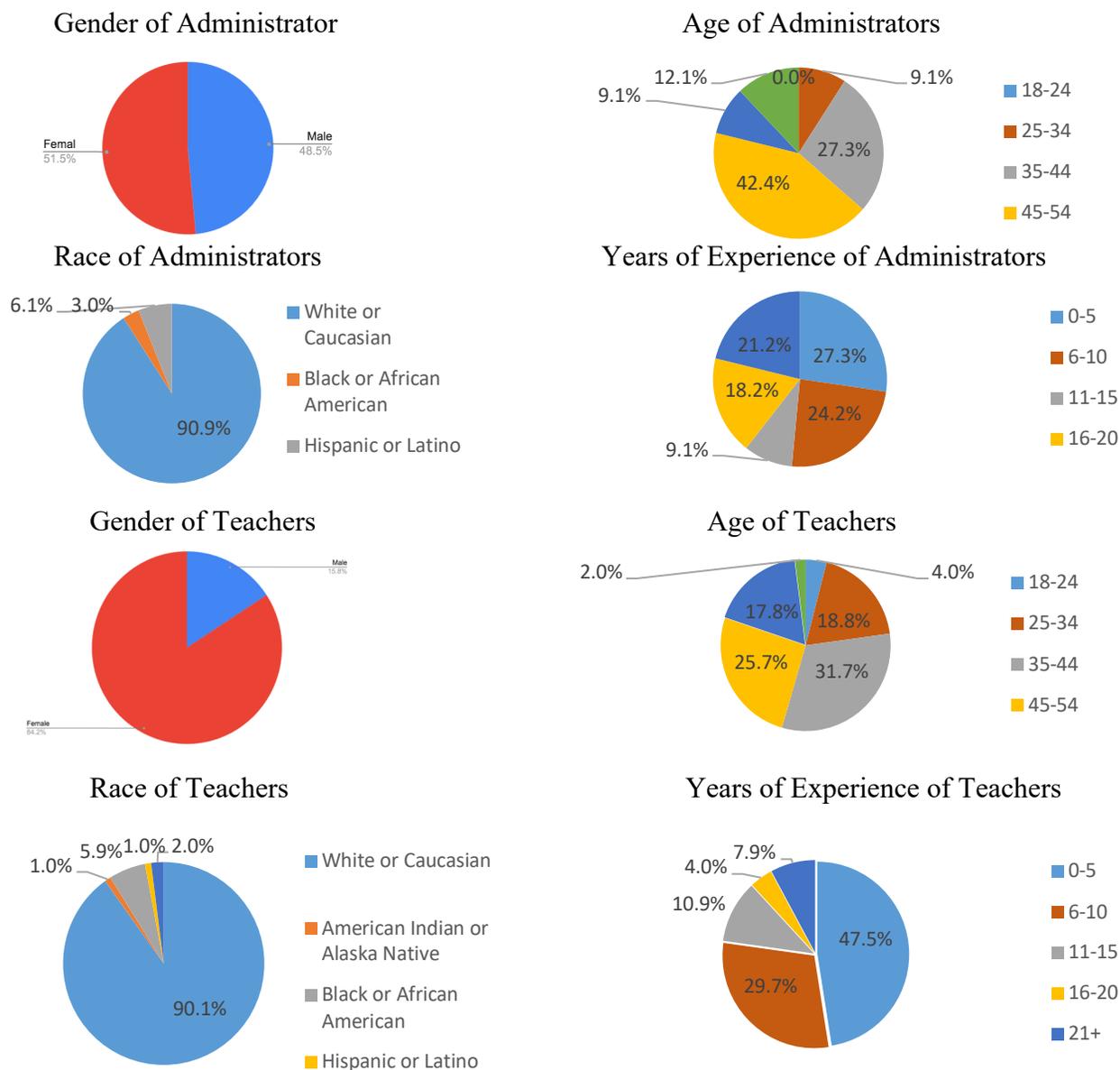
The participants for the study were drawn from a convenience sample of high school administrators and teachers employed at Association of Christian Schools International (ACSI) member schools in the southeast region of the United States (Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia) during the summer semester of the 2022-2023 school year. A convenience sample was chosen for this study because of the easy accessibility of obtaining participants (Gall et al., 2007). ACSI frequently works with researchers to recruit participants (L. Swaner, personal communication, April 23, 2019). ACSI's research department directly deployed the surveys by sending an email to all administrators and teachers in the southeastern region. The target population from which the sample was drawn includes all

administrators and teachers in Grades 9–12 in ACSI member schools in the southeast region of the United States. Research that uses correlation coefficients should use a large sample size in order to provide a strong indication of the strength of the relationship between the variables. When the sample size is small, the correlation can be skewed by a few outliers (Warner, 2013). For this study, a sample size of 100 is sufficient when assuming a medium effect size with a statistical power of .7 at the .05 alpha level, according to Warner (2013). The response rate to the surveys was 10%, which was less than anticipated.

This study focuses on the survey results from administrators and teachers in ACSI secondary schools. Specifically, administrators include principals, assistant principals, or Heads of Schools. The participants received an email asking them to participate in a survey, which was administered through Survey Monkey. The participants were directed to the survey by clicking a link in the email. After answering demographic questions, the participants answered the questions on the survey. Figure 2 below details the demographic information for the administrators and teachers who participated in the surveys.

Figure 2

Participant Demographics



Instrumentation

Two instruments were used to collect data for this study: the Shared Leadership Perception Survey (see Appendix A) and the Teacher Sense of Efficacy Scale (see Appendix B). Shared leadership in ACSI schools in the southeastern region was measured by the Shared Leadership Perception Survey (SLPS). This instrument was developed by Dr. Michael Wood

(2005). Wood (2005) derived the survey questions from the work of Porter-O'Grady and Wilson (1995), and he adapted questions from Hiller's (2002) leadership questionnaire (Wood, 2005). The instrument contains 18 questions that measure a team's overall shared leadership and four sub-dimensions of shared leadership: joint completion of tasks, mutual skill development, decentralized interaction among personnel, and emotional support. The questions are presented on a 4-point Likert scale, with answers ranging from: 1 (definitely not true), 2 (generally not true), 3 (generally true), and 4 (definitely true). Items 12, 14 and 15 of the decentralized interaction sub-dimension are reverse-coded. Internal consistency of the survey questions was calculated using Cronbach's alpha and was found to be .91 for overall shared leadership, .87 for joint completion, .75 for mutual skill development, .71 for decentralized interaction, and .74 for emotional support (Wood, 2005). The SLPS is scored by calculating the overall mean score for shared leadership and the mean scores for each sub-dimension.

The survey instrument is appropriate for this study because it is a tool that investigates educators' perceptions of shared leadership. Its short form provides ease for participants to complete the survey in less than ten minutes. The SLPS has been used in other studies on shared leadership (e.g., Abdullah & Ismail, 2017; Ong et al., 2016). Before the instrument was utilized in the current study, permission was requested from Dr. Michael Wood of Nebraska Christian College.

Teacher efficacy in ACSI schools in the southeastern region was measured by the Teacher Sense of Efficacy Scale (TSES). This scale is a widely used instrument in education and has been utilized by educators across the globe (Duffin et al., 2012). It has been utilized in numerous peer-reviewed studies (e.g. Berg & Smith, 2018; Dicke et al., 2014; van Daal et al., 2014). The instrument was developed by Tschannen-Moran and Hoy (2001) to evaluate teachers' beliefs of their own success in teaching (Duffin et al., 2012). Tschannen-Moran & Hoy based

their validation study off previous teacher efficacy scales, including Gibson and Dembo (1984) and Bandura (1997). The questions on the TSES represent three areas of teaching: Classroom Management (CM), Student Engagement (SE), and Instructional Strategies (IS). The long form of the survey consists of 24 questions. Participants answered the questions on a Likert rating scale, ranging from 1 (nothing) to 9 (A Great Deal). The participants responded with the following range: 1 (nothing), 3 (very little), 5 (some influence), 7 (quite a bit), 9 (a great deal). The scores were calculated by finding the mean of the items for each factor. The validity study found the questions had high reliability (0.91 for instruction, 0.90 for management, and 0.87 for engagement) (Tschannen-Moran & Hoy, 2001). The TSES is considered “reasonably valid and reliable” (Tschannen-Moran & Hoy, 2001, p. 801). This survey is appropriate for this study because it is a widely utilized and valid survey to measure teacher efficacy, and it takes less than ten minutes for participants to complete. Before the instrument was utilized in the current study, permission was requested from the developer at Ohio State University.

Procedures

The researcher first secured IRB approval (see Appendix C) from Liberty University before eliciting participants for the study. Next, the researcher contacted ACSI’s research department to request approval to conduct the study within their member schools. Once approval was granted, the researcher created two survey links by transferring the questions from the TSES and the SLPS surveys into Survey Monkey. The researcher then created a recruitment email that contained a link to the surveys. ACSI’s research department forwarded the recruitment email to all administrators and teachers within the southeastern region. Administrators were emailed the link to the SLPS survey, and teachers were emailed the link to the TSES survey. The email explained the purpose of the research and requested their participation. They were informed the questions would take approximately 10 minutes of their time. Once the participants clicked on

the survey link, they were directed to Survey Monkey where they first read the informed consent (see Appendix D) and directions. By clicking the “next” button, the participants were granting consent to participate in the study. Then they proceeded to answer five demographic questions and the survey questions. One of the demographic questions asked participants to identify the name of their school so the administrators and teachers’ answers can be linked together to complete the correlation analysis. Once the researcher received 100 complete surveys, the data was exported into Excel. The scores from the TSES and the SLPS surveys were recorded separately. The data from both surveys were then transferred to SPSS so the researcher could run descriptive and inferential statistics.

All information that was collected that could identify the participants was protected. Data was stored securely on a password protected computer, and only the researcher had access to the records. When not being utilized, the computer is stored in a locked drawer filing cabinet. The data will be retained for three years after the completion of this research study.

Data Analysis

The data was analyzed using multiple linear regression to see if shared leadership has a predictive value on the criterion variables of teacher efficacy. Multiple linear regression is an appropriate method for analyzing the strength and effect predictor variables have on a criterion variable (Warner, 2013). To determine if the null hypotheses can be rejected, a multiple linear regression was performed between the four predictor variables (mean scores of joint completion of tasks, mutual skill development, decentralized interactions, and emotional support) and the criterion variable (teacher efficacy mean scores).

First, the researcher entered the data into SPSS and screened the data for inconsistencies or extreme outliers. The researcher looked for extreme bivariate outliers by examining scatter plots between all pairs of independent variables (x_1, x_2), the predictor variables (x), and the

criterion variable (y). Any outliers were studied to determine if they should be removed before proceeding. The researcher then conducted assumption testing to check for linearity and bivariate normal distribution by using scatterplots for each pair of predictor variables and between the predictor variables and the criterion variable. If the variables were not linearly related, demonstrated by the classic “cigar shape,” the power of the test was reduced. The researcher then assessed the assumption of the absence of multicollinearity for the predictor variable using the Variance Inflation Factor (VIF). If the VIF was too high (greater than 10), this assumption was violated, and multicollinearity is present. Next, multiple linear regressions were run to analyze the null hypotheses at the 95% confidence level. Effect size is reported using Cohen’s f^2 .

CHAPTER FOUR: FINDINGS

Overview

Chapter Four provides the results of this study. The purpose of this correlational study is to examine the relationship between Christian school administrators' shared leadership practices and teacher efficacy during the COVID-19 pandemic. The study seeks to explore the impact of shared leadership (as measured by the Shared Leadership Perception Scale) on teacher self-efficacy (as measured by the Teacher Sense of Efficacy Scale). More specifically, the researcher seeks to determine if the multiple dimensions of shared leadership (predictive variables) have a predictive value on teacher efficacy (criterion variable). Descriptive statistics were computed for each of the variables by using the average of the survey items' scores. Data was screened and assumption tests were conducted. Multiple linear regression analysis was used to determine if there was a statistically significant predictive relationship between shared leadership and teacher efficacy.

Research Question

RQ1: How accurately can teacher efficacy be predicted from a linear combination of the shared leadership domains of Christian school administrators?

Null Hypotheses

H₀: There is no significant predictive relationship between the criterion variable (overall teacher efficacy) and the linear combination of the predictor variables of shared leadership (joint completion of tasks, mutual skill development, decentralized interactions, and emotional support) of Christian school administrators.

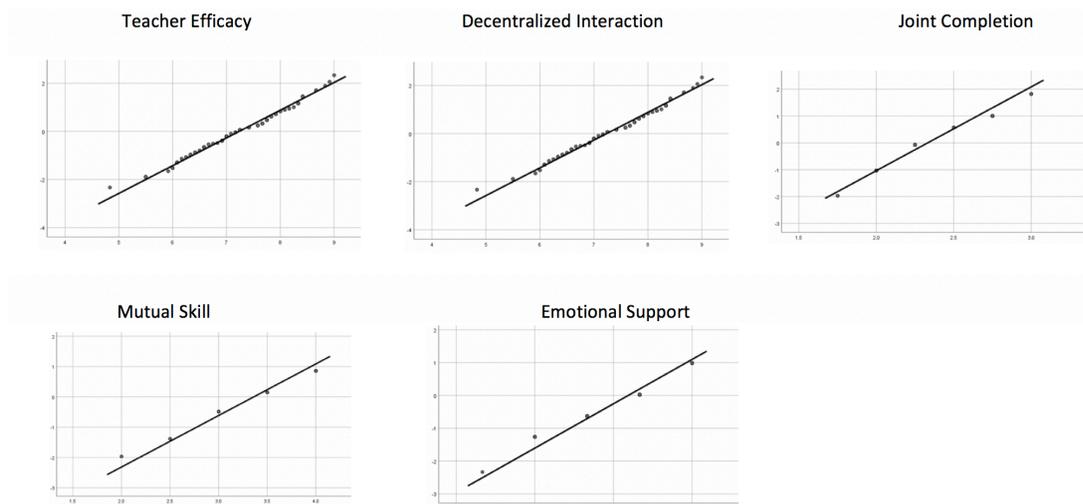
Data Screening

Before performing the linear regression, it was necessary to ensure the data of the variables were free from outliers and to confirm that the distribution of the data is normal. The

researcher first examined the data set to ensure there were no missing values or extreme responses. Out of 101 cases, there were no missing or extreme values found. Outliers were examined using scatterplots. No outliers were discovered. See Figure 3 for scatterplots.

Figure 3

Scatterplots



Descriptive Statistics

Descriptive statistics were computed for each of the variables. The sample consisted of 101 participants. Teacher efficacy was assessed using the Teacher Sense of Efficacy Scale (TSES). The questions on the TSES represent three areas of teaching: Classroom Management (CM), Student Engagement (SE), and Instructional Strategies (IS). Participants answered the questions on a Likert rating scale, ranging from 1 (nothing) to 9 (a great deal). The participants responded with the following range: 1 (nothing), 3 (very little), 5 (some influence), 7 (quite a bit), 9 (a great deal). For this study, teacher efficacy is referred to as Overall Teacher Efficacy because the three specific areas of teaching were not examined separately.

Shared leadership in ACSI schools in the southeastern region was measured by the Shared Leadership Perception Survey (SLPS). The instrument contains 18 questions that

measure a team's overall shared leadership and four sub-dimensions of shared leadership: joint completion of tasks, mutual skill development, decentralized interaction among personnel, and emotional support. The questions are presented on a 4-point Likert scale, with answers ranging from: 1 (definitely not true), 2 (generally not true), 3 (generally true), and 4 (definitely true).

The composite scores of the criterion and predictor variables were computed by the average of the items' scores. Table 1 displays the means and standard deviations of the variables, assessed on 9- and 4-point Likert scales.

Table 1

Descriptive Statistics

	<i>n</i>	<i>M</i>	<i>SD</i>
Overall Teacher Efficacy (OTE)	101	7.236	0.867
Joint Completion (JC)	101	3.279	0.370
Mutual Skill Development (MSD)	101	3.361	0.588
Decentralized Interaction (DI)	101	2.332	0.320
Emotional Support (ES)	101	3.594	0.370
Valid <i>n</i> (listwise)	101		

The mean was applied as a measure of central tendency, indicating the mean values of Overall Teacher Efficacy are above the mid-point level of 5 out of 9-point Likert scale. Similarly, the mean values of joint completion (JC), mutual skill development (MSD), and emotional support (ES) were 3.279, 3.361, 3.594 respectively. All values for these three variables were above the mid-point level of 2.5 out of the 5-point Likert scale. The data indicates that the participants' perceptions toward these constructs are above the average. The mean value of decentralized interaction (DI) was 2.332, approximately standing at mid-point level of 2.5 out of 4-point Likert scale. This data indicates that the respondents' perceptions toward decentralized

interaction (DI) were at the average level. The standard deviation indicates the degree to which individuals within each variable differ from the variable mean.

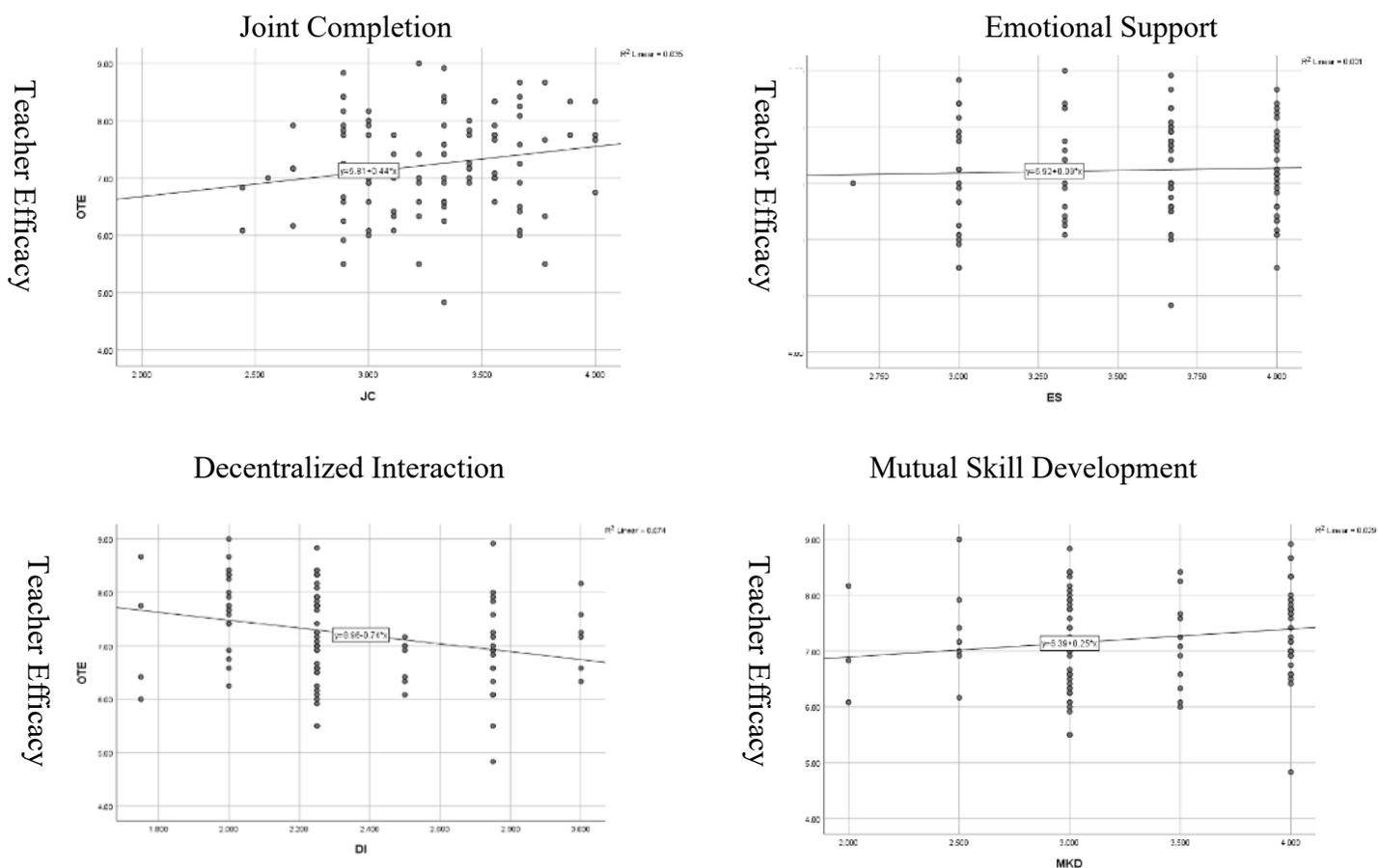
Assumption Testing

Assumption of Linearity

The researcher then conducted assumption testing to check for linearity and bivariate normal distribution by using scatterplots for each pair of predictor variables and between the predictor variables and the criterion variable. Linearity requires a linear relationship between criterion and predictor variables. The scatter plots in Figure 4 demonstrate the classic “cigar shape,” showing the line of fit.

Figure 4

Scatter Plots



Assumption of Bivariate Normal Distribution

Multiple linear regression requires the bivariate normal distribution assumption to be met. The researcher examined this assumption using scatter plots. The assumption of bivariate normal distribution as met, as shown in Figure 4.

Assumption of Multicollinearity

When correlations are high between predictor variables, any change in the data can lead to considerable changes in the regression coefficients. Therefore, the researcher tested the assumption of the absence of multicollinearity for the predictor variables using the Variance Inflation Factor (VIF). Multicollinearity between the predictor variables can skew the validity of the regression (Gall et al., 2007). If the VIF is too high (greater than 10), this assumption is violated and multicollinearity is present.

The results of examining multicollinearity between joint completion (JC), mutual skill development (MSD), decentralized interaction (DI), and emotional support (ES) and as predictor variables are shown in Table 2. The variance inflation factor (VIF) values for all predictors were below the threshold of 10, ranging between 1.223 and 1.942. These results demonstrated that there was no multicollinearity between the independent variables.

Table 2

Collinearity Statistics

Model	Collinearity Statistics		
	Tolerance	VIF	
1	Decentralized Interaction (DI)	0.803	1.246
	Joint Completion (JC)	0.515	1.942
	Emotional Support (ES)	0.818	1.223
	Mutual Skill Development(MSD)	0.577	1.732

a. Dependent Variable: Efficacy

Results

Multiple linear regression was conducted to evaluate the significant effects of multiple predictors on a criterion variable. The predictor variables were joint completion of tasks, mutual skill development, decentralized interactions, and emotional support. The criterion variable was teacher efficacy scores. The researcher rejected the null hypothesis at the 95% confidence level where $F(4,96) = 2.59, p = .041$. There was a statistical relationship between the predictor variables (scores from the linear combination of the domains of shared leadership) and the criterion variable (teacher efficacy scores). Table 3 provides the regression model results.

Table 3

Regression Model Results

Model		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
1	Regression	7.334	4	1.833	2.59	.041 ^b
	Residual	67.903	96	.707		
	Total	75.237	100			

a. Dependent Variable: Efficacy

b. Predictors: (Constant), Joint Completion of Tasks, Mutual Skill Development, Decentralized Interactions, and Emotional Support

The model's effect size was medium where $R = .312$. The R^2 value is the variation in the criterion variable that can be explained by one or more independent variables (Hair et al., 2006). Cohen (1992) explains that R^2 values with a range of 0.02 - 0.12 are weak, values with a range of 0.13 - 0.25 are moderate, and values of 0.26 or greater are large. As shown in Table 4, the R^2 value is 0.097, referring to a weak prediction strength of variations in the criterion variable by the independent variables. For example, only 9.7% of variations in the criterion variable are explained by the linear combinations of the four predictors. However, the regression equation

with all four predictors is significantly related to teacher efficacy, $R^2 = 0.97$, adjusted $R^2 = .060$, $F(4,96) = 2.59$, $p = .041$. The null hypothesis can be rejected at the 95% confidence level since the p value of .041 is less than the significance level. Table 4 details the model summary.

Table 4

Model Summary

Model	R^2	R	Adjusted R^2	SEM
1	.0097 ^a	0.312	0.60	0.841

a. Predictors:(Constant), Joint Completion of Tasks, Mutual Skill Development, Decentralized Interactions, and Emotional Support

Because the researcher rejected the null hypothesis, an analysis of the coefficients was required. It was found that only one of the four predictors, decentralized interactions, was statistically significant. Table 5 provides the coefficients.

Table 5

Coefficients

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	SE	B			
1 (Constant)	7.559	1.199			6.305	.000
Decentralized Interaction	-.731	.293	-.270		-2.494	.014
Joint Completion	.079	.316	.034		.250	.803
Emotional Support	.194	.251	.083		.771	.442
Mutual Skill Development	.126	.188	.086		.670	.504

a. Dependent Variable: Efficacy

CHAPTER FIVE: CONCLUSIONS

Overview

The current body of literature has shown the many positive effects of shared leadership, including overall organizational improvement (Carson et al., 2007; Shipper et al., 2014; Wang et al., 2014), increased creativity and innovation (Liang & Gu, 2016), and teachers' satisfaction and commitment (Drescher & Garbers, 2016; Pietsch et al., 2019). However, more needs to be discovered about the effects of shared leadership on teacher efficacy in Christian schools, especially during times of adversity. The researcher realized a unique opportunity to conduct research on shared leadership in Christian schools during the COVID-19 pandemic. During the pandemic and the years following, leaders in schools were forced to navigate through uncharted territories and lead their schools through a crisis. The researcher observed a higher level of shared leadership during the crisis and desired to examine the predictive value of this leadership style on teacher efficacy in Christian ACSI schools in the southeastern region. This study seeks to provide empirical data that could assist Christian school leaders as they lead their schools in and through adversity. This chapter presents the conclusion of this study and the implications of the results. The researcher then examines the limitations of the study, citing any threats to the study's validity. Recommendations for future studies are also suggested.

Discussion

This study found a significant relationship between the criterion variable (teacher efficacy) and the linear combination of the predictor variables (joint completion of tasks, mutual skill development, decentralized interactions, and emotional support) of Christian school administrators in the southeastern region of the United States, where $F(4,96) = 2.59, p = .041$. Christian administrators and teachers ($n = 101$) in the southeastern region of the United States completed the Shared Leadership Perception Scale (SLPS) and the Teachers Sense of Efficacy

Scale (TSES). The researcher analyzed the data from the surveys to determine if shared leadership had a significant predictive value on teacher efficacy. The data were analyzed using multiple linear regression, which revealed a significant relationship between the linear combination of the domains of shared leadership and teacher efficacy. However, the partial correlations were run for all four of the individual domains and only one was found to be statistically significant. The results of this study are consistent with current research.

The linear combination of the four domains of shared leadership has a positive and predictive value on teacher efficacy. Teacher efficacy relates to teachers' confidence and their persistence in the classroom to influence change. Teacher efficacy is impacted by leadership qualities such as decision-making processes (Wilcox & Lawson, 2018). Leaders should be intentional in their shared leadership practices in order to increase teacher efficacy. The higher a person's self-efficacy, the more effort they contribute to situations and adversity (Morris et al., 2017). Research demonstrates high teacher efficacy has a positive effect on student performance (Mohamadi & Asadzadeh, 2012), teacher performance (Chen & Chen, 2019), high levels of job satisfaction (Molero et al., 2019), and it lowers attrition rates among staff. It is especially important to understand the relationship between shared leadership and teacher efficacy in the midst of the challenges caused by a crisis such as the global pandemic.

Decentralized Interactions

Decentralized interactions among personnel is the only domain of shared leadership in which this study found a statistically significant partial correlation. In decentralized interactions, team members do not have a hierarchy nor a title. Each person is considered an equal, and there is not one person who makes all the decisions. Every team member feels united and equally valued. On the Shared Leadership Perception Survey (SLPS), questions in the decentralized interactions domain included: *The opinion of each member counts; There is a pecking order;*

There is one individual on this team that decides what other members will do; and A good slogan for this leadership team would be “Every man/woman for himself/herself.” While the present study found a significant predictive relationship between teacher efficacy and the subdomain of decentralized interactions, the relationship is a negative one. The data revealed when decentralized interaction goes up by 1 standard deviation, teacher efficacy goes down by 0.270 standard deviations.

The domain of decentralized interactions relies heavily on the theory that leadership should be horizontal and not vertical, or top down. This domain focuses on the collective work of team members in leadership instead of just influence from one individual leader. The current body of literature regarding the hierarchy in leadership specifically emphasizes horizontal influence across team members and not vertical influence from one specified formal leader (Ensley et al., 2006; Pearce & Conger, 2003; Pearce & Sims, 2002). Research also shows that vertical influence, or the traditional top-down model of leadership, can work together with shared leadership teams to increase productivity in new ventures (Zhu et al., 2018). Moreover, Lord et al. (2017) states, “shared leadership can be viewed in terms of how different individuals enact leader and follower roles at different points in time” (p. 444). Lord’s et al. (2017) study recognizes the need at times for a pecking order or a specified leader who decides what other team members will do, a theory that supports the findings from the present study. Times such as a pandemic can lead to the need for a more top-down leadership approach.

Relating to theory, research on disruptive innovation theory demonstrates that when faced with a disruption, such as the COVID-19 Pandemic, organizations should create an additional leadership team at the corporate level to gather disruptive innovation ideas and implement them (Christensen & Raynor, 2003). This leadership team should utilize shared leadership practices to

gather information from stakeholders. When looking through the lens of disruptive innovation theory, the results of this study in regard to decentralized interactions are expected.

Joint Completion

In regards to the shared leadership domain joint completion, the results of this study are inconsistent with previous research. However, this study did indicate a positive relationship between joint completion and teacher efficacy, but not a significant one. Through joint completion, team members share in all the following aspects of the organizational structure: establishing goals, framing the vision, diagnosing the problem, accountability, decision making, resource allocation, team actions, team obligations, and sharing of information. On the Shared Leadership Perception Survey (SLPS), questions in the joint completion domain included: *Team members collaborate with one another in making decisions that affect this organization; Each team member helps to frame the vision for this organization; Each member shares information with others on the team so that all members can work more effectively; Each member shares in deciding on the best course of action when a problem faces the team.*

Although there is not a large body of literature specifically regarding the domain of joint completion, current literature provides an abundance of research demonstrating the positive outcomes associated with collaboration between team members. The term shared leadership is synonymous with collaborative leadership (Goksoy, 2016; Hallinger & Heck, 2009). Studies have found a significant direct relationship between teachers' efficacy and collaborative practices. Teachers report being more thoughtful and challenging in their teaching practices when they were offered opportunities to collaborate (Goddard & Kim, 2018). When each team member is participating in all areas of the organization, from framing the vision to allocating funds, teacher efficacy is increased. Collaboration in decision-making increases teacher morale and ownership of the decisions being made within an organization (Smith & Swezey, 2013, p.

24).

The joint completion domain of shared leadership is supported by this study's theoretical framework. Transformational leaders develop shared goals, develop people, redesign the organization by enabling collaboration, and improve the instructional program (Leithwood & Sun, 2012). Additionally, during a research project involving a disruptive innovation, the researchers found higher-performing teachers noted the importance of collaboration; they benefited from their leaders showing trust in their professional judgement (Wilcox & Lawson, 2018). Transformational leadership practices value team members' input and their ability to assist with decisions for the organization.

Emotional Support

The shared leadership domain of emotional support emphasizes encouragement between team members, patience shared among colleagues, and a profound relational connection. On the Shared Leadership Perception Survey (SLPS) used in this study, questions in the emotional support domain included: *A relational and vocational connection exists among members of this leadership team; Team members encourage one other during challenging times at work; and Members display patience with others on the team.*

Current literature supports the positive effects of emotional support on teacher efficacy. The current research also reveals a positive relationship, but not a statistically significant one. Bandura (1997) noted that particularly in difficult times, words of affirmation strengthen a teachers' self-efficacy. Chiu et al. (2016) found the relational structure of shared leadership led to improvements in a team's performance. Data analysis revealed that a leader's humility was positively related to shared leadership, and shared leadership was positively related to team performance. When formal leaders praised the team members and were willing to receive feedback from them, team members became more confident in their work. Additionally, Han et

al. (2019) found that a relational connection among teams promoted creativity and innovation. The literature supports that staff attitudes are improved in an environment of shared leadership (Drescher & Garbers, 2016; Serban & Roberts, 2016). Teachers' positive affective experiences were directly and positively related to self-efficacy and job satisfaction (Burić & Moè, 2020). Serban and Roberts (2016) recognized the leaders' attitude and the reward system's significant positive effect on teacher efficacy and job satisfaction. Kösterelioğlu (2017) research revealed that the emotional support dimension of shared leadership was a strong predictor of academic optimism.

Regarding theory, transformational leadership theory supports the positive outcomes of emotional support. Transformational leaders are admired as role models and are highly respected by their followers. Followers trust the leaders and aspire to be leaders just like their mentors. Leaders provide a high sense of belonging in the organizational culture. These leaders are encouragers and motivators. Followers are not criticized for mistakes, but they are encouraged to participate in problem solving. Bass and Avolio (1993) emphasized that transformational leaders begin with the assumption that people are trustworthy, unique, and purposeful. Bass (1998) asserted that transformational leadership was the key to leading organizations through difficult times, especially during "times of crises, uncertainty, volatility, and turbulence" (p. 28). Transformative leaders create a culture of trust and commitment (L. Wang et al., 2017).

Mutual Skill Development

The shared leadership domain of mutual skill development proposes that team members should learn new skills from each other and help their colleagues develop those skills. On the Shared Leadership Perception Survey (SLPS) employed in this study, questions in the mutual skill development domain included: *Members commonly learn important job skills from the others on the team*, and *Members help one another develop their job skills*.

Even though the present study did not reveal a statistically significant relationship between mutual skill development and teacher efficacy, the data did show a positive relationship, which aligns with current literature. Shared leadership involves the process of establishing a time and place for team members to collaborate. By forming working teams, multiple people with specialized knowledge can work together to solve problems (Hu et al., 2016). Moreover, teachers learn from one another when they witness the victories and failures of other teachers. Teachers build their confidence to attempt a teaching strategy when they witness it being done by another, or they judge what not to do when they witness a failure Bandura (1997). Additionally, in a work environment with higher shared leadership practices, teachers naturally took on leadership roles by collaborating and assisting their colleagues (Donohoo, 2018).

Transformational leadership theory supports the positive effects of mutual skill development in education. From the foundational ideas of transformational leadership, Burns (1978) understood the needs of the followers. He claimed that the best leaders are those who inspire team members to come together. He valued personal relationships and people's ability to engage with each other. Burns (1978) asserted that transformational leadership occurs when team members are encouraged to work together and push each other toward greater levels of accomplishment. Thomas et al. (2020) argue that transformational leaders provide support and resources to teachers, thereby increasing their confidence and self-efficacy. By providing opportunities for teachers to learn from one another, teacher efficacy is increased.

Overall, the results of this study are consistent with previous research on shared leadership and its impact on teacher efficacy. Moreover, this study adds to the body of literature by demonstrating the impact of shared leadership during a time of a world-wide crisis. Christian school leaders can apply the evidence from this study and the previous literature to understand how to better lead their schools through adverse times.

Implications

The present study has added valuable information to the existing body of knowledge regarding shared leadership and its implications for teacher efficacy. The knowledge gained from the study can help school administrators improve their schools' conditions, work environment, and staff morale, especially during crises. The COVID-19 pandemic provides a monumental opportunity for researchers to gain a deeper understanding of how disruptions can bring about positive change. This current research may also advance the theory of transformational leadership by providing a unique opportunity for researchers to explore this theory in light of a global crisis. It is important to understand how stress affects transformational leaders and their ability to continually motivate and engage with their followers during an ongoing crisis.

Furthermore, the present study reveals a significant negative relationship between Decentralized Interactions Among Personnel and Teacher Efficacy. This phenomenon may be due to the stress in education from the COVID-19 Pandemic. Since the start of the pandemic, private school leaders have been under immense pressure to make quick decisions that have long term affects. Administrators had to quickly decide how to keep their schools open during a national stay-at-home order. When schools resumed to meet on campus, private school administrators had the liability of making decisions to keep students safe from the virus. They also made quarantine decisions that were unpopular for most parents. The negative relationship in this study between Decentralized Interactions and Teacher Efficacy may be due to the fact teachers do not want the burden of making the leadership decision during this crisis.

Christian school leaders should recognize the value of shared leadership practices during adverse times. When stakeholders are invited to be involved in collaborative practices, the outcomes can be positive. As this study has shown, the linear combination of the domains of shared leadership has a significant positive effect on teacher efficacy. This study reveals the

specific areas in which Christian school educators should focus their attention, especially during times of crises.

Limitations

The researcher identifies limitations with this study. Correlational research does not allow for causal inferences to be made. Correlational studies reveal whether a relationship is present between the predictive and criterion variables, but the cause cannot be determined (Asamoah, 2014). Moreover, cross-sectional research designs such as this study are useful for establishing preliminary evidence, but the outcomes identified may be difficult to interpret. The researcher cannot investigate risk factors, nor control for biases such as non-response to the surveys or recall biases (Wang & Cheng, 2020). Research biases may result in misleading results.

Another limitation to this study is the great length of time it took to gather the survey data. By the time the required number of participants completed the surveys, the COVID-19 Pandemic was settling down, and the majority of the restrictions had been lifted. The survey results may not accurately reflect the participants' opinions of shared leadership during a crisis when the results were gathered near the end of the pandemic. Similar studies should be done with a wider population sample in order to obtain the data in a timely manner.

Moreover, research that employs survey data comes with limitations. Due to the self-reporting nature of surveys, there is a risk that participants do not provide accurate answers. Participants may misunderstand or interpret the survey questions differently. Researchers cannot ask follow-up questions to probe deeper into understanding the participants' answers. Another limitation of utilizing surveys is the possibility of participants randomly responding to questions instead of reading the questions thoroughly and providing truthful answers.

Finally, the small size convenience sample utilized in this study limits its generalizability. This study's population is unique to ACSI Christian high schools in the southeastern region of

the United States. Therefore, the results of this study are only generalizable to similar populations.

Recommendations for Future Research

1. This study should be repeated in Christian schools in additional regions across the United States to increase the sample size, thereby increasing its generalizability.
2. This study should be repeated in elementary and middle Christian schools across the United States.
3. This study should be repeated using additional theoretical constructs to provide a better understanding of shared leadership.
4. This study should be repeated using the sub-domains of teacher efficacy to further understand the predictive value of shared leadership on teacher efficacy.

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APPENDIX A

Permission to Use Surveys

Shane Wood 

 Inbox - LCA September 20, 2021 at 10:19 AM

Re: Request to use Shared Leadership Perception Scale

To: Cheryl Cavanaugh

Greetings, Ms. Cavanaugh.

I hope this email finds you well.

I am glad to have you use the Shared Leadership Inventory. Can you explain what you mean by information on scoring?

Blessings.



M. Shane Wood, PhD
Associate Director, Commission on Accreditation
Association for Biblical Higher Education
5850 T.G. Lee Blvd., Ste 130, Orlando, FL 32822

March 20, 2022

Cheryl Cavanaugh,

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 <https://mxtsch.pages.wm.edu/>.

Please use the following as the proper citation:

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

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

All the best,

Megan Tschannen-Moran
William & Mary School of Education

APPENDIX B

Shared Leadership Perception Survey

<i>Shared Leadership Perception Survey</i>	Definitely Not True	Generally Not True	Generally True	Definitely True
The opinion of each member counts when they share their perceptions regarding a situation facing the team.	1	2	3	4
There is a “pecking order” within this leadership team. (r)	1	2	3	4
Team members collaborate with one another in making decisions that affect this organization.	1	2	3	4
A good slogan for this leadership team would be “Every man/woman for himself/herself.” (r)	1	2	3	4
Each team member helps to frame the vision for this organization.	1	2	3	4
A relational and vocational connection exists among members of this leadership team.	1	2	3	4
Despite the job “titles” used within this organization, each member is considered an “equal” to the others on this team.	1	2	3	4
There is one individual on this team that decides what other members will do. (r)	1	2	3	4
Each member shares information with others on the team so that <i>all members</i> can work more effectively.	1	2	3	4
Each member chips in (even if it is outside an area of personal responsibility) to ensure the team fulfills its obligations.	1	2	3	4
Each member is evaluated by, and is accountable to, all other members of this leadership team.	1	2	3	4
Each team member of the leadership team shares in establishing the goals for this organization.	1	2	3	4
Each member has a say in deciding how resources are allocated in regard to the team’s priorities.	1	2	3	4
Each member shares in deciding on the best course of action when a problem faces the team.	1	2	3	4
Each member helps to identify, diagnose, and resolve the problems that face this leadership team.	1	2	3	4

APPENDIX C

Teachers' Sense of Efficacy Scale¹ (long form)

Teacher Beliefs	How much can you do?									
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing									
		Very Little								
			Some Influence							
				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 D

IRB Approval

[External] IRB-FY21-22-871 - Initial: Initial - Exempt

do-not-reply@cayuse.com <do-not-reply@cayuse.com>

Thu 4/28/2022 5:18 PM

To: Ford, [REDACTED]

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



April 28, 2022

Cheryl Cavanaugh
Angela Ford

Re: IRB Exemption - IRB-FY21-22-871 The Relationship Between Administrators' Use of Shared Leadership Practices and Teacher Efficacy During the COVID-19 Pandemic

Dear Cheryl Cavanaugh, Angela Ford,

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

Consent

Title of the Project: The Relationship Between Administrators' Use of Shared Leadership Practices and Teacher Efficacy During the COVID-19 Pandemic

Principal Investigator: Cheryl Turner Cavanaugh, Ed.D., Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be over the age of 18 and be employed as an administrator or teacher at an Association of Christian Schools International (ACSI) member schools in the southeast region of the United States. Taking part in this research project is voluntary. Please take time to read this entire form and ask questions before deciding whether to take part in this research.

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

The purpose of the study is to examine the relationship between Christian school administrators' shared leadership practices and teacher efficacy during the COVID-19 pandemic. The study seeks to explore the impact of administrators' use of shared leadership on teacher self-efficacy, or teachers' level of confidence in their ability to perform tasks. More specifically, the researcher seeks to determine if the multiple dimensions of shared leadership have a predictive value on teacher efficacy.

What will happen if you take part in this study?

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

1. Open an email and click the provided link that will direct you to the Survey Monkey website. This task will take approximately 20 seconds.
2. On the Survey Monkey website, you will read the instructions to the survey, answer five demographic questions, and answer the survey questions. This task will take less than 10 minutes to complete.
3. Click the "complete" button when done. This task will take approximately 5 seconds.

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 improving communities and society in general. By understanding the impact of shared leadership practices during a crisis, school administrators can adapt their leadership practices. Administrators' effective leadership practices directly relate to school outcomes.

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. All information that is collected that could identify the participants will be protected.

- Participant responses will be anonymous.
- Data will be stored securely on a password protected computer, and only the researcher will have access to the records. When not being utilized, the computer will be stored in a locked drawer filing cabinet. The data will be retained for a period of three years after the completion of this research study.

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

Participants will not be compensated for participating 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 or ACSI. 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 Cheryl Turner Cavanaugh. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED] or [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Angela Ford, 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.