THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP IN ELEMENTARY SCHOOL PRINCIPALS AND COLLABORATION AMONGST ELEMENTARY SCHOOL STUDENTS IN THE CLASSROOM

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THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP IN ELEMENTARY SCHOOL PRINCIPALS AND COLLABORATION AMONGST ELEMENTARY SCHOOL STUDENTS IN THE CLASSROOM

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TABLE OF CONTENTS

ABSTRACT

The current state of education elicits a quest to prepare students for future jobs and remains an immediate priority and challenge for educators across the nation (Weddle, 2020). Unfortunately, students are leaving high school lacking the competencies needed for future careers. As a result, schools are making students less prepared to succeed than any other generation. The approach to preparing students must change to reflect 21st-century opportunities and challenges (Tharumaraj et al., 2018). Researchers have found that collaboration was a top priority for employability across every country (Sundberg, 2017).

The purpose of this correlational study was to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary school principals' leadership traits at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students working together to solve problems or answer questions, working effectively and respectfully in teams to accomplish a common goal, and assuming shared responsibility for completing a task (Hixson, Ravitz, & Whisman, 2012). The independent variables—(a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004). The researcher conducted a Pearson's correlation to assess the strengths of relationships. Multiple regression was then utilized for additional analysis to determine predictive measures between variables. Analysis of data revealed that statistical significance was not identified in the hypotheses.

CHAPTER ONE

INTRODUCTION

There is an educational crisis in schools across the nation (Darling-Hammond & Cook-Harvey, 2018; Darling-Hammond, Wise, & Klein, 2019; Darling-Hammond, Wise, & Klein, 2019; Sundberg, 2017). Schools are leaving students less prepared to succeed than any other generation. The approach to preparing students must change to reflect 21st-century opportunities and challenges (Sundberg, 2017). Jobs of the future will be less automated and less task oriented and transfer to skills and dispositions that only the human mind possesses. The life span of companies is under 20 years, and most people will change employers multiple times in their career. Learning and acquiring new skills is part of the transformation of the job market. Thus, future skills, including creativity, critical thinking, communication, and collaboration, have become a relevant part of preparing students through education (Tharumaraj, Krishnan, & Perumal., 2018). According to the McKinsey Global Institute (2017), over 400 million people will seek new employment due to automation. The shift will solicit the need for innovation and effective leadership to facilitate change in schools (Griffin, Cangelosi, McMurtrey, & Lyons, 2017).

The recent pandemic, COVID-19, has placed a bigger spotlight on a lack of readiness among many districts to facilitate 21st-century learning opportunities for students (P. Campbell, 2020). Many schools need reform to better prepare students for the future (Sundberg, 2017). Half of the workforce despises their current career path, and schools are attempting to raise the bar of education to help students fulfill their future endeavors (Tharumaraj et al., 2018). Making the shift to support our nation requires a

change in schools. Leaders must think innovatively and take deliberate action to provide equitable and future-ready instruction for all students (Brandt & Thompson, 2020).

Leadership is essential to the school's operation and second only to classroom instruction for successful schools (Eliophotou-Menon & Ioannouz, 2016; Hattie, 2017; Marzano, 2017). According to Marzano (2017), effective leadership is needed to impact change. Leaders have been challenged to raise achievement, close gaps, and continually redefine pedagogy to support students and teachers to develop skills that increase efficacy and competence (Chiong, Menzies, & Parameshwaran, 2017; Goren, 2018). In the 21st century and beyond, leadership that teaches, elicits curiosity, values people, and pivots with change is wanted.

A transformational leader is described as one who inspires, supports followers, and creates change by creating more leaders (Bass, 1985; Burns, 1978). Transformational leaders can promote change in systems. Transformational leadership allows leaders and followers to engage in the cooperative purpose for improvement and motivation (Burns, 1978). This study focused on the importance of the principal to lead the 21st-century learning endeavor and influence teachers to change teaching practice and prepare students for collaborative experiences in future careers. Understanding how transformational leadership dispositions relate to student collaboration will assist in how principals lead and how students learn to be future-ready in the 21st century and beyond.

Chapter One will encompass the theoretical framework, problem statement, rationale, and research questions. Limitations, delimitations, and assumptions accompanied within this study will be addressed through design controls. This chapter will also define critical terms pertinent to this study.

Statement of Problem

The pressure is building as students in the United States are underperforming compared to many competing countries (Darling-Hammond, Hyler, & Gardner, 2017; Darling-Hammond, Sheffield, Hyler, & Gardner, 2018; Darling-Hammond et al., 2019; Weddle, 2020). While the United States is lagging, other nations are focusing on 21st-century skills and advancing. The current state of education elicits a quest to prepare students for future jobs and remains an immediate priority and challenge for educators across the nation (Weddle, 2020). Unfortunately, students are leaving high school lacking the competencies needed for future careers. As a result, schools are making students less prepared to succeed than any other generation. The approach to preparing students must change to reflect 21st-century opportunities and challenges (Tharumaraj et al., 2018). Researchers have found that collaboration was a top priority for employability across every country (Sundberg, 2017). This study on transformational leadership style and student collaboration practice sought to add to the body of knowledge by focusing on the relationship between transformational leadership and student collaboration by looking at what specific transformational leadership practices, if any, are used by elementary school principals reporting high levels of student collaboration from the teacher's point of view.

Students must be able to apply knowledge in a future setting by being creative, thinking critically, communicating, and collaborating with others (Hirsh-Pasek, Hadani, Blinkoff, & Golinkoff, 2020; Magana, 2017). Collaboration is an essential skill that connects individuals to communicate, think critically, and be creative. Collaboration allows for brainstorming and dialogue to provide experiences, mental models, and guidance to the organization's vision (Bloomberg & Pitchford, 2017; Daniels,

Hondeghem, & Dochy, 2019; Kotter, 2017; Marzano, Warrick, Rains, & DuFour, 2019). Effective leadership fosters collaboration by cultivating a trusting environment and confident, self-efficacious relationships (Bloomberg & Pitchford, 2017; Kouzes & Posner, 2017). Principals need to know how to help facilitate the 21st-century vision and support teachers and students to be prepared for 21st-century challenges. The problem remains that schools do not prepare students to be successful in the 21st century, and principals have not consistently learned how to help with this endeavor.

Purpose of the Study

The purpose of this correlational study was to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary school principals' leadership traits at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students working together to solve problems or answer questions, working effectively and respectfully in teams to accomplish a common goal, and assuming shared responsibility for completing a task (Hixson, Ravitz, & Whisman, 2012). The independent variables—(a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004).

This research was necessary because schools are over two decades into the 21st century and still challenged with preparing students for future endeavors. Lacking competencies needed for future careers, students leave high school less prepared to succeed than any other generation. As the role of an elementary principal becomes more

challenging, understanding how their transformational leadership dispositions relate to learning and innovation skills in the school setting will set the stage for their school community and students to be successful in life. The leaders' approach to preparing students must change to reflect 21st-century opportunities and challenges (Warrick, 2018). A principal who empowers teachers through transformational leadership creates a school climate that embraces innovation and reform (Sun & Henderson, 2017; Warrick, 2018).

Transformational leadership is one of the most researched topics (Alatawi, 2017; Alqatawenh, 2018; Anderson, 2017; Gorgulu, 2019; Heller, Notgrass, & Conner, 2017; Jovanovic & Ciric, 2016; Lee Abdullah & Varatharajoo, 2017; Pradhan & Jena, 2019; Reinders, 2017; Shafique & Beh, 2017; Sun & Henderson, 2017; Warrick, 2018). However, there was a gap in literature connecting principals who demonstrate transformational leadership behaviors and how this relates to collaborative experiences for students in the classroom. The Institute for the Future found that most of the current jobs will be obsolete in the future. Twenty-first century learning is a competitive advantage for learners of tomorrow. The concept of transformational leadership stimulates innovation. Students must be creative, think critically, communicate, and collaborate with others for future jobs (Hirsh-Pasek et al., 2020; Magana, 2017; Sundberg, 2017). Since 2020 and going forward, collaboration has been and continues to be a critical skill needed because it allows students to think critically, communicate, and be creative by understanding and working with others. Although several studies exist around transformational leadership, limited research links the two constructs of transformational leadership and student collaboration.

Theoretical Framework

Leadership is vital to the functioning of schools (Hattie, 2017; Marzano et al., 2019). Through this study, the researcher looked to examine the relationship of an elementary principal's transformational leadership style with student collaboration implemented in the classroom. This research was viewed through the theoretical lens of James MacGregor Burns's (1978) and Thomas Kent's (1999) work on transformational leadership and Vygotsky's (1978) and Battelle for Kids' (2019) work on collaboration. In addition, this research included a survey encompassing five categories of transformational leadership developed by Kent, Crotts, and Aziz (2001) and Battelle for Kids' learning and innovation skills.

Transformational leadership has been one of the most researched topics compared to all research topics combined in business and schools and is usually present when change is needed (Anderson, 2017). Burns (1978) first established his theory of transforming leadership while studying political leaders. Burns defined transformational leadership as leaders and followers who are motivated to the highest levels. Burns so found that when transforming leadership exists, relationships are respected, there are higher levels of employee engagement, and employees act on morals.

Bernard Bass (1985) built on Burns's (1978) finding that a leader's impact could be measured by their influence on followers. Bass further stated that followers felt inspired by leaders who have a vital mission and vision. Transformational leadership became a sought-after practice in schools when Leithwood, Harris, and Hopkins (2008) released seven claims to raise test scores. Although Leithwood et al. did not list transformational leadership in the seven claims, they summarized that setting the

direction, helping people, and redesigning the organization were ways to improve, which are closely aligned to Bass's transformational leadership theory. Leithwood et al. further suggested that transformational leadership could be the answer for schools chasing 21st-century changes for students, as transformational leadership is based on motivating employees to improve. Researchers further suggested that transformational leadership could be the key to school reform as transformational leadership is a collaborative approach to school improvement (J.W. Campbell, 2018). Kent (1999) further defined transformational leadership behaviors by looking at previous research (Bass, 1985; Bass & Avolio, 1994) on transformational leadership.

Part of the theoretical framework for this study was Kent's (1999) transformational leadership work. Kent focused on the difference between leading and managing and five subcategories of transformational leadership. The five categories that described transformational leadership led to developing the Leadership Behavior Inventory (LBI; Kent et al., 2001). The LBI questionnaire was given to subordinates who were asked to describe their leaders. Kent et al. (2001) used the Statistical Package for the Social Science (SPSS) and Linear Structural Relations (LISREL), a research company, to find five factors encompassing the five categories within the Leadership Behavior Inventory (LBI). The intent of creating the leadership behaviors was to measure leadership and quantity behaviors using structural equation modeling. The five factors assessed in the Leadership Behavior Inventory were (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition.

Visualizing Greatness refers to having a sense of direction and a clear sense of the future while effectively communicating the vision to others. Vision casting is achieved through solid communication, setting goals, and motivation (Kent, 2004; Kouzes & Posner, 2017). Visualizing Greatness encourages collaboration, which was the emphasis of this research (Kent, 2004). Empowering the We is outlined by behaviors that are aligned with creating a team, fostering collaboration, engaging members of the team to take ownership, empowering and involved in decision making, and identifying with value to the betterment of the collective whole (Kent, 1999; Kent et al.., 2001). Care and recognition occur when the leader expresses attention to team success or victory. Managing oneself happens when leaders have focus, confidence, and energy.

Communicating for meaning is a crucial part of transformational leadership between leaders and followers (Sun & Henderson, 2017). Communicating for meaning refers to the leader's communicating style. In particular, the leader can make sense of and relate ideas to other people with more than surface-level issues.

To further see the effect of transformational leadership in education, Leithwood and Jantzi (2006) completed a study of 2,290 teachers over 4 years. Leithwood and Jantzi further established that transformational leadership had a positive effect on teachers' motivation and somewhat of an effect on the teacher's ability. Leithwood et al. (2008) further suggested that transformational leadership could be the answer for schools chasing 21st-century changes for teachers and students (Leithwood & Jantzi, 2006; Prasetia, Melfayetty, & Dewi, 2020; Sun & Henderson, 2017).

Effective leadership in 21st-century schools is essential (Eliophotou-Menon & Ioannouz, 2016; Hattie, 2017; Marzano et al., 2019). Today's students have never known

a world without smartphones and play with tablets before they can walk. Leadership dispositions must be tailored to prepare Generation Alpha and beyond. The shifting of 21st-century priorities for leaders is overdue, and leaders are tasked with helping students prepare for challenges and careers that do not exist yet.

There are growing gaps between the skills businesses look for and students' skills to be successful in the 21st century. Battelle for Kids (2019) was previously known as the Partnership for 21st-Century Learning and was developed in 2002 as a coalition uniting many stakeholders, including educators, business leaders, and policy makers. The goal of this coalition was to initiate a conversation quickly around skills needed for the 21st century that students should be learning in schools across the nation. The mission of Battelle of Kids is to realize the power and promise of 21st-century learning for every student in early learning, in school, and beyond school across the country and around the globe.

Battelle for Kids (2019) conceptual framework was used for this study and was developed with input from a variety of business and educational stakeholders. The goal of this framework was 21st-century readiness for every student through life and career skills, learning and innovation skills, information, media, and technology skills, and 21st-century themes. Battelle for Kids identified that life and career skills include flexibility, adaptability, initiative, self-direction, social and cross-cultural skills, productivity and accountability, leadership, and responsibility. Learning and innovation skills include critical thinking, communication, collaboration, and creativity (Battelle for Kids, 2019). Information, media, and technology skills include information literacy, media literacy, information, communications, and technology literacy. Themes within 21st-century

learning include global awareness, financial, economic, business, and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy (Battelle for Kids, 2019). These soft skills divide students who are prepared for future work endeavors and those who are not (Battelle for Kids, 2019). Collaboration is one of the essential skills needed for the future for students to be successful in the classroom and beyond.

Early thoughts on collaboration and learning as a social process were founded by Vygotsky (1978). The constructivism theory describes the teacher as a facilitator in the classroom while providing social learning opportunities (Vygotsky, 1978). The basis of these theories are that learning is a social process and supports problem-based learning, cooperative learning, and personalized learning endeavors, and works on the premise of the process of knowledge rather than prescribed learning outcomes (Kagan, 2018). As a result, students have opportunities to create their understanding, and the learning environment becomes more student entered. These skills are now recognized as 21st-Century Skills, according to Battelle for Kids (2019). Vygotsky (1978) believed that social interaction caused cognitive change rather than just stimulating it.

Research Questions

1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?
2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?

3. What is the relationship between elementary student collaboration in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view?
4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view?
5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?
6. What is the ability of (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012)?

Null Hypotheses

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

$H_0$3: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view.

$H_0$4: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view.

$H_0$5: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view.

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

Significance of Study

The case for 21st-Century Learning calls for citizens to contemplate how we can best support students to succeed and further suggests that, if we do not make changes, our youth will struggle to be competitive globally (Sundberg, 2017). Developing 21st-century skills is essential for students who can thrive in an uncertain and ever-changing workforce. While creativity, critical thinking, collaboration, and communication have been established as critical qualities for our future workforce (Battelle for Kids, 2019), the question now is not what skills we need to teach in the 21st century, but how schools can ensure these types of experiences happen.

Previous research has found a positive impact between principals possessing transformational leadership behaviors and the performance of teachers (Leithwood & Jantzi, 2006; Sun & Henderson, 2017). Likewise, the relationship between transformational leadership and innovative behavior is unclear (Pradhan & Jena, 2019). Transformational leaders motivate teams to develop unity, so individuals work towards a common goal versus personal interests. Research has also indicated that principals can influence student learning by partnering with teachers to connect instruction and assessment (Wieczorek, 2017). Researchers agree that collaboration is how schools and teachers get better (Bloomberg & Pitchford, 2017; Darling-Hammond et al., 2018). Teacher collaboration allows for positive change in student learning through the purposeful sharing of experience, knowledge, and ideas.

When teachers work together, student outcomes can improve (Darling-Hammond et al., 2018). Principals need to be more active in the facilitation of professional development that emphasizes collaboration in the classroom. There has not been research assessing the relationship of transformational leadership in elementary principals and collaboration utilized within the school with students. Leithwood et al. (2008) suggested that transformational leadership could be the answer for schools chasing 21st-century changes for students. Further, scholars found that further research should focus more on the impact of specific leadership practices and less on models (Leithwood & Jantzi, 2006). Previous research with 21st-century skills is addressed in high-achieving elementary schools but is mostly taught unintentionally. Addressing the need for more collaboration at the student level could promote unity and problem solving, skills desperately needed in 2021 and beyond.

To move forward, leaders must nurture and understand the vision of 21st-century learning (Battelle for Kids, 2019; Hirsh-Pasek et al., 2020). Transformational leaders could be a pivotal element to ensure collaboration in the classroom, a critical 21st-century skill, is a priority and implemented. This research made a practical contribution in the elementary principal field of study by adding to the body of research around leadership and student collaboration. This study could also assist principals in their quest towards creating future-ready students who possess 21st-century skills and are ready.

Definition of Key Terms

Battelle for Kids. A national organization with the mission of promising 21st-century learning for every student (Battelle for Kids, 2019).

Collaboration. Working together to achieve a goal, leading to other preferred individual and group results, successful problem solving (Battelle for Kids, 2019).

Communication. "To communicate clearly, a student needs to: communicate clearly, articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts, listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions, use communication for a range of purposes (e.g., to inform, instruct, motivate and persuade), utilize multiple media and technologies, and know-how to judge their effectiveness as well as assess their impact, communicate effectively in diverse environments (including multilingual)". (Battelle for Kids, 2019, para. 3)

Cooperative Learning. A theory that learning is social and requires collaboration through positive interdependence, individual accountability, equal participation, and simultaneous interaction. A teaching arrangement refers to small,

heterogeneous groups of students working together to reach an objective (Kagan, 2018).

Creativity. The ability, method, and atmosphere by which an individual or group produces a noticeable creation that is both innovative and beneficial (Battelle for Kids, 2019).

Critical Thinking. A set of cognitive skills and depositions (Battelle for Kids, 2019).

Elementary School. A public school that has kindergarten through sixth-grade students (Missouri Department of Elementary and Secondary Education, 2020).

Multifactor Leadership Questionnaire (**MLQ**). A self-assessed leadership tool used to measure the amount of transformational and transactional leadership within a person (Bass & Avolio, 1994, 2004).

Transformational Leadership. A style of leadership when a leader interacts with their subordinates to increase motivation and achieve extraordinary results (Kent, 1999).

21st Century Learning. The skills, knowledge, and expertise students must know and master to be successful in both work and life. It is a mix of content knowledge, specific skills, and literacy. For the purpose of this study, the definition correlates with the research done by Battelle for Kids (Battelle for Kids, 2019).

Delimitations

The delimitations that may have existed with this research included the following:

1. The study included public elementary schools within Missouri serving students in grades K through sixth grades in any capacity in the 2021-2022 school year.
2. This study was delimited to collaboration as a 21st-century skill.

3. Creativity, communication, and critical thinking were excluded in this survey due to the researcher's focus.
4. The study included transformational leadership (Kent, 1999) and excluded transactional leadership due to the focus of the research.

Limitations

The limitations of the study included the following:

1. The number of participants who responded to the survey.
2. The willingness of the administrators to allow teachers to participate in the online survey.
3. Self-reported data may have shown bias as it may be challenging to assess collaboration or transformational leadership accurately.
4. The number of school principals across the state who responded was a smaller percentage of those who could have participated in the online survey.
5. There was a lack of prior research connecting transformational leadership and student collaboration.
6. Factor analysis results in the survey utilized in a portion of this study by Hixson et al. (2012) did not indicate that critical thinking, creativity, collaboration, and communication are clearly measured when assessed together.

Assumptions

The assumptions of the study included the following:

1. It was assumed that participants were honest in their responses.
2. It was assumed the participants that received the survey took the survey themselves.

3. It was assumed that the Missouri public school principals found on the Missouri Department of Elementary and Secondary Education website were accurate.
4. There were no significant outliers.
5. It was assumed that findings could be generalized to similar populations in other states.

Design Control

The researcher used a quantitative design in a correlational manner to collect data. Correlational designs are utilized to identify the relationship between two variables, student collaboration, and transformational leadership, from the teacher's point of view (Laerd Statistics, 2015). In addition, the use of surveys was included. Survey research can gather information about a group's beliefs, attitudes, behaviors, and demographic compositions.

The researcher considered and addressed each limitation. The researcher utilized an electronic survey for all elementary teachers in Missouri to ensure more survey responses were collected. After completion, participants were provided the opportunity to submit their names separately from the survey to be entered in a drawing for $25 Amazon gift cards. Although this was voluntary, this encouraged participants to complete the study and the administrator to distribute it. Participants were invited to email the researcher if interested in findings that are outlined in Chapter Five. Because a portion of the survey by Hixson et al. (2012) did not clearly indicate that critical thinking, creativity, collaboration, and communication were clearly measured within a portion of the survey utilized in this research, the researcher only focused on collaboration. The researcher

completed a pilot study before the survey was sent to ensure the reliability and validity to ensure the most reliable instrument was selected.

Delimitations were also identified and considered. This study only focused on one 21st-century skill, collaboration. This allowed the researcher to focus on the relationship between collaboration on transformational leadership. The researcher utilized the Missouri Department of Elementary and Secondary Education's (DESE) open-access site. This allowed the researcher to only contact public schools in Missouri in the 2021-2022 school year

The researcher considered the assumptions of the survey. The anonymity of the survey allowed teachers to respond honestly and encouraged participants to openly describe their experiences with student collaboration and transformational leadership observed in their elementary principal. A statement assuring anonymity was included in the survey to control this.

The survey used in this study addressed the research questions of whether there was a relationship between elementary student collaboration and transformational leadership in elementary school principals from the teacher's point of view. As elementary skills are foundational for learning, the researcher focused on surveying elementary school teachers throughout Missouri. Elementary teachers evaluated Likert-scale questions to identify the relationship between collaboration in elementary school students and transformational leadership in elementary school principals.

Summary

Schools must prepare students for their future endeavors. Students need to be able to be creative, think critically, communicate, and collaborate with others (Magana, 2017).

Collaboration is a key disposition that employees desire (Sundberg, 2017). Principals have the ability to impact student learning (Darling-Hammond et al., 2019; Hattie, 2017). Understanding how an elementary principal's transformational leadership dispositions relate to learning and innovation skills in the school setting will set the stage for their school community and students to be successful in life.

The purpose of this correlational study was to test the theory of transformational leadership that related to collaboration for elementary teachers at public elementary schools in Missouri. The dependent variable, student collaboration, is defined as students being able to work together to solve problems or answer questions, work effectively and respectfully in teams to accomplish a common goal, and assume shared responsibility for completing a task (Hixson et al., 2012). The independent variables—(a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing Oneself, and (e) Care and Recognition— describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004).

Although transformational leadership has been well researched, this research will fill the gap in literature connecting transformational leadership in elementary principals and student collaboration. The conceptual framework utilized by the researcher was Battelle for Kids learning and innovation skills. Transformational leadership has been linked to the success of leaders and followers (Bass & Avolio, 1994; Leithwood & Jantzi, 2006). The five leadership behaviors of Kent (1999) allow for insight into leader effectiveness and behavior. The five factors assessed in the Leadership Behavior Inventory were (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating

for Meaning, (d) Managing One's Self, and (e) Care and Recognition (Kent, 1999, 2004, 2005; Kent et al., 2001).

The initial chapter is the rationale for examining the relationship between elementary principals who possess transformational leadership dispositions and collaboration skills in elementary school students. In Chapter Two, the researcher presented an in-depth review of literature related to transformational leadership and 21st-century learning and innovation skills. In Chapter Three, the researcher will describe the methodology of this study, including the research design. The chapter includes details regarding Kent's LBI and collaboration. In Chapter Four, the researcher presents the data and findings of the research. Finally, in Chapter Five, the researcher will present conclusions, data, and recommendations for research in the future.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

In 2021, one third of jobs will require skills that were not considered essential in 2015, and 9 of 10 workers will have to learn new skills to keep up with the changes in today's workforce (Frey & Osborne, 2017; Krause & Sawhill, 2017; Roos & Shroff, 2017). As a result, schools are leaving students less prepared to succeed than any other generation, and the approach to preparing students must change to reflect 21st-century opportunities and challenges (Warrick, 2018). Second only to classroom instruction, leadership impacts the operation of the school (Eliophotou-Menon & Ioannouz, 2016; Hattie, 2017; Jung & Sheldon, 2020; Marzano, 2017). School leaders are tasked with improving pedagogy and ensuring students are future-ready. In the 21st century and beyond, leadership that teaches, elicits curiosity, values people, and pivots with change is wanted.

A transformational leader is described as one who inspires, supports followers, and creates change by creating more leaders (Bass, 1985; Burns, 1978). Transformational leaders can promote change in systems. Transformational leadership allows leaders and followers to engage in the cooperative purpose for improvement and motivation (Burns, 1978). School leaders must examine their leadership style and processes that impact staff and students (Shaked, Benoliel, Nadav, & Schechter, 2018). Students must be able to apply knowledge in a future setting by being creative, thinking critically, communicating, and collaborating with others (Magana, 2017; Sundberg, 2017). Change in student learning in the 21st century and beyond is essential. Schools are over two decades into

the 21st century, and students are leaving high school without the key competencies employers desire.

According to Marzano et al. (2019), effective leadership is needed to impact change. Effective leadership fosters collaboration by cultivating a trusting environment and confident, self-efficacious relationships (Bloomberg & Pitchford, 2017). An endeavor too large to rest independently on the school leader, transformational leadership allows leaders and followers to engage in the cooperative purpose for improvement and motivation (Burns, 1978). As the role of an elementary principal becomes more demanding, understanding how transformational leadership dispositions relate to student collaboration will aid in future foci.

The purpose of this correlational study was to test the theory of transformational leadership that related to collaboration for elementary teachers at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students being able to work together to solve problems or answer questions, work effectively and respectfully in teams to accomplish a common goal, and assume shared responsibility for completing a task (Hixson et al., 2012). The independent variables— (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition— describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004). There is limited research linking the two constructs of transformational leadership and student collaboration.

The following chapter is a review of literature organized by areas of research. The review will begin with the development of transformational leadership and how this

theory supports school leadership. The first area is a review of Burns's (1978) transformational leadership and how this theory developed. Next, academic literature connected to transformational leadership and the expansion of Kent's et al. (2001) leadership behaviors is discussed. This section also concentrates on Kent's five behaviors on which the current study focuses. (a) Visualizing Greatness, (b) Empowering the We, (c) Communicate for Meaning, (d) Managing One's Self, and (e) Care and Recognition will be described in detail. Each behavior provides qualities that the leader should encompass to improve organizational effectiveness. The next area of this chapter focuses on transformational leadership in education. Transformational leaders can unify staff towards a shared vision (Allen, Grigsby, & Peters, 2015; Nurabadi et al., 2021). The final area of this chapter focuses on collaboration. Transformational principals create environments for deep learning and collaboration. The benefits of teacher collaboration can be shifted to students who experience collaboration at the classroom level.

The second section is divided into 21st-century learning and Battelle for Kids learning and innovation skills, emphasizing collaboration and learning as a social process (Piaget, 1978; Vygotsky, 1978). The importance of 21st-century learning began the section by discussing the need for future-ready students and the lack of readiness for students who are not engaged in critical dispositions that companies want. Companies continue to seek employees with communication, creativity, critical thinking, and collaboration as jobs continue to change become more automated. Battelle for Kids, a nonprofit devoted to 21st-century learning for every student, explores learning and innovation skills. Communication, creativity, critical thinking, and collaboration are

described in detail, with an emphasis on collaboration. Creativity, critical thinking, and communication are all enhanced with collaboration, making it one of the essential skills for the future and the focus of this study. The section ends with practices supporting student collaboration in the classroom and recent research connected to this.

History of Transformational Leadership

Leadership has been documented in academic literature as a popular topic that is hard to define but easy to feel. The overall climate of an organization can be determined by the leader (Hattie, 2017). Transformational approaches focus on greater productivity and effort from followers (Alatawi, 2017; Alqatawenh, 2018; Anderson, 2017; Gorgulu, 2019; Heller et al., 2017; Jovanovic & Ciric, 2016; Lee Abdullah & Varatharajoo, 2017; Pradhan & Jena, 2019; Reinders, 2017; Shafique & Beh, 2017; Sun & Henderson, 2017; Warrick, 2018; Yaslioglu & Selenayerden, 2018).

Weber (1947) is known for early work with transformational leadership topics and identified three types of leaders and their relationships with their followers. The first area described bureaucratic leaders or those who were strict and demanded control. These types of leaders are appointed to their position based on technical skills. The second area is the traditional leader. Traditional leaders gain respect from their followers because of the authority that they possess. Charismatic leaders, the third area outlined by Weber are described as dedicated and have exemplary abilities. The term *charisma* was applied initially within the scope of social science leaders who were extraordinary problem solvers (Heller et al., 2017; Nassif, Hackett, & Wang, 2021). Charismatic leadership did not always result in leaders classified as inspirational, but Weber's

description of charisma was synonymously described later as transformational by Bass (1985).

In 1978, James MacGregor Burns researched political leaders and presented his findings in his book, *Leadership*. Burns investigated the difference between managers' and leaders' behaviors, describing two types of leadership: transforming leadership and transformational leadership. Transforming leadership was defined by Burns as increased morale and motivation that leaders and followers utilize. Followers are motivated to achieve higher success levels for the good of the organization (G.L. Johnson, 2021). When managers use the transforming leadership approach, there is a significant change in the organization because followers are inspired and dedicated to achieving higher levels (Burns, 1978). Core values and motivation are the working norms of the transformational leader compared to leaders who rely on structure deemed as transactional leaders. Transactional leaders focus on compliance, focus on rewards and punishments, and keep employees motivated in the short term (Bass, 1985; Bass & Avolio, 1994; Burns, 1978). Transformational leadership gained popularity by leadership researchers because Burn's (1978) theory was the first instance of moral and ethical inclusion in leadership discussions.

Bernard M. Bass (1985) used Burns's (1978) research to develop further how transforming leadership could be measured explicitly by looking at a leader's impact on their followers. Bass changed the name of transforming leadership to transformational leadership and described how leaders considered transformational used their charisma to motivate followers. Transformational leaders exuded high levels of what Bass called charisma. Leaders show respect and trust and therefore encourage their followers to

achieve more (Bass, 1985). Bass's leadership model merged the two theories of transformational and transactional leadership. Transformational leadership was considered forward-thinking due to challenging the status quo and increasing production through increased motivation (Bass, 1985). Bass wrote *Leadership and Performance Beyond Expectations* to research the effects of transformational leadership. Bass and Avolio (2004) described Idealized Influence, Inspirational Motivation, Individual Consideration, and Intellectual Stimulation as the four elements of transformational leadership (Sun & Henderson, 2017).

The four elements are referred to as the four I's of transformational leadership and later used in the Multifactor Leadership Questionnaire (MLQ), a questionnaire assessing transformational, transactional, and passive avoidant leadership styles. The original items on the questionnaire received criticism of ambiguity and were revised by Bass and Avolio (1994, 2004). The revisions by Bass and Avolio to the MLQ included leadership actions that were observable and found to be more reliable. Research surrounding transformational leadership found in the MLQ described the four I's as follows.

The first category, Idealized Influence, distinguishes transformational leaders as role models of behavior that are considered ethical. "Idealized Influence is characterized by modeling behavior through exemplary personal achievements, character, and behavior" (Bass, 1985, p. 218). Followers see the leader as having determination, persistence, effective communication skills, consistency, and trustworthiness (Lee Abdullah & Varatharajoo, 2017). Leaders who possess Idealized Influence find success in fulfilling the mission and vision. Zahrai (2020) detailed one example of this attribute

by describing Sam Walton, the founder of Walmart, connecting with employees by visiting stores across the nation.

The second category, Individual Consideration, distinguishes the transformational leader as a mentor and coach, seeing each member of their team's contribution (Sun & Henderson, 2017). "Individual Consideration is characterized by giving personal attention to members who seem neglected" (Bass, 1985, p. 218). For example, Zahrai (2020) detailed how Mary Barra, the CEO of General Motors, handled a significant recall crisis by showing compassion and transparency for the victims involved.

The third category, Inspirational Motivation, distinguishes transformational leaders as motivators of the vision. "Inspirational Motivation is characterized by communicating 'high-performance expectations" (Bass, 1985, p. 218). In addition, these leaders communicate goals effectively, excite their followers to believe they can achieve their goals, and adjust to situations (Mahmudah, Bafadal, & Sobri, 2020). One example of inspiration motivation by Zahrai (2020) detailed a record company owner, Richard Branson, empowering assistants to achieve and skipping more qualified people to build excitement within the company.

The fourth category, Intellectual Stimulation, encourages followers to think outside the box, embrace new ideas, take risks, generate ideas, and innovate (Bass & Avolio, 1994, 2004). "Intellectual Stimulation is characterized by enabling followers to think of old problems in new ways" (Bass, 1985, p. 218). Zahrai (2020) detailed an account of Steve Jobs showing Intellectual Stimulation by having the Pixar building redesigned to encourage more collaboration.

Concerns around transformational leadership were noted when Bass and Avolio (1994) spoke to pseudo transformational leaders or leaders that looked out for their interests. Leaders were only considered transformational if they had integrity, morality, and ethical values (Hattie, 2017). Morality is of concern when criticism is brought up regarding transformational leadership. Bass and Avolio found that transformational leadership can have poor outcomes without personal interest and accountability of morality. Following this research of successful transformational leaders in the business sector, many researchers studied transformational leadership in the school setting as a potential answer to school improvement in the 1990s (Leithwood & Jantzi, 2006).

Assessing Transformational Leadership

Developed from Bass and Avolio's theory on transformational leadership, Kouzes, Posner, and Biech (2017) created a leadership effectiveness model to increase organizational success. The Leadership Practice Inventory included a self-assessment of behavior frequency on a Likert scale. Followers of the leaders would also take the assessment. The goal was to help people become their personal best through positive actions and reflection around leadership topics (Kouzes & Posner, 2018). The Leadership Practice Inventory included the underpinnings transformational leadership possessed through five practices observed in leaders. These practices were (a) Inspiring a Shared Vision, (b) Modeling the Way, (c) Challenging the Process, (d) Encouraging the Heart, and (e) Enabling Others to Act (Kouzes et al., 2017).

Inspiring a Shared Vision occurs when leaders manifest change within the organization by systematically enlisting followers to support the organization's goal. The vision is evident and collaboratively created. Modeling the Way involves leaders

modeling desired and expected behaviors within the organization. Beliefs, ethics, and values are explicit and shared among the organization. Challenging the Process embodies the growth mindset to challenge the status quo to enhance and improve to meet the organization's goals (Snyder, 2017). New ideas are welcomed and encouraged while Challenging the Process (Kotter, 2017; Kouzes et al., 2017). Leaders are Encouraging the Heart to inspire the organization through positive words, acknowledgment, and creating a community of believers. Enabling Others to Act is defined as allowing for teamwork and influence to create a community of trust. Leaders provide opportunities for professional development and continue to instill confidence within the organization to face challenges in an exemplary manner and further develop personal mastery (Kouzes et al., 2017). The five areas of the Leadership Practice Inventory reinforced that employees desire inspiring, honest, forward-thinking, and collaborative leaders (Kouzes & Posner, 2017). These themes by Kouzes et al. (2017) were also found in similar research (Bass & Avolio, 1994; Kotter, 2017).

The impact of transformational leadership was also noted by Kotter (2017) in three themes: aligning people, motivating and inspiring, and establishing direction. The three themes focused on attaining long-term success. Bass and Avolio (1994) and Kotter (2017) agreed that transactional leadership was necessary in leadership at times and believed establishing a vision was important. These theories have similar themes, including setting goals, mutual influence, communicating the vision, commitment, and passion for building a strong organization (Bass & Avolio, 1994, 2004; Kotter, 2017; Shaked et al., 2018). With research uncovering transformational leadership's success in

the business sector, transformational leadership research surfaced in the school setting (Leithwood & Jantzi, 2006).

Transformational Leadership in Education

One of the most critical factors in moving a school forward is the principal as the lead learner (Hattie, 2017; Pietsch & Tulowitzki, 2017). The tenets of transformational leadership remain a priority among school leaders because of their ability to impact employee performance (Fitrianana & Eddy, 2021; Marzano et al., 2019; Mohiuddin, 2017). A great leader can inspire, motivate, and change an organization. Researchers suggest transformational leadership may be a crucial part of transforming schools (Allen et al., 2015; Leithwood & Jantzi, 2006; Mohiuddin, 2017).

The objective of transformational leadership in education is to grow the level of commitment in the school. It inspires school staff to reach their potential through high levels of energy, integrity, and communication. Differing from traditional leadership models in education, transformational leadership focuses on the needs of the teachers and staff and leverages the follower to respectfully work with others by sharing responsibility and valuing contributions within the school team (Bass & Avolio, 1994). This type of leadership theory promotes self-efficacy, teacher leadership qualities, and collaboration in schools.

Transformational leadership surfaced in the school setting in the 1990s (Kent, 1999, 2004; Kent et al., 2001; Kotter, 2017; Leithwood & Jantzi, 2006). Studies in the last 20 years have included the effects of transformational leadership practices on behaviors that drive school change. Researchers proposed that transformational leadership may be the answer for school improvement and many educational leaders

began to implement the empowerment of teachers (Ewell, 2018; Giddens, 2018; Muchiri, McMurray, Nkhoma, & Pham, 2019).

Reforming schools to prepare students for their future is a challenging task for administrators. Transformational leadership is a potential answer to current challenges that administrators encounter and can trigger high leverage results in schools (Cansoy, 2019, 2020). Leaders influence teaching and learning (Baptiste, 2019; Marzano et al., 2019). Leithwood suggested transformational leadership as the answer for leaders inspired to meet 21st-century challenges, including creativity, critical thinking, communication, and collaboration (Leithwood & Jantzi, 2006; Marzano et al., 2019). Collaborative structures embedded within transformational leadership promoted the mindset that change is needed to best support students' everchanging needs. The amount of transformational leadership was an essential predictor of the transfer of best practice instructional strategies and reform at the classroom level (Boberg & Bourgeois, 2016). A principal's behavior will influence a teacher's behavior and the example they set within the building. A principal can encourage, motivate, and inspire the people they lead. The collective shared vision within a school inspires teachers and students (Kotter, 2017; Senge, 2006).

Transformational leadership emphasizes how leaders empower and coach the staff they lead through positivity, strong communication, vision casting, and collaboration (Bass, 1985; Bass & Avolio, 2004; Leithwood & Jantzi, 2006; Marzano et al., 2019; Whitaker, Zoul, & Casas, 2017). In a study of 2,290 teachers over 4 years, Leithwood and Jantzi (2006) found transformational leadership had a positive effect on the motivation and ability of the teacher. Research of 3,746 teachers by Easley and

Tulowitzki (2017) had similar findings and demonstrated that administrators strongly influenced the work setting, ability to innovate, motivate, and empower teachers to make strong instructional decisions for students within their classrooms. Additional research supported the notion that principals' transformational leadership directly impacts a teacher's ability, motivation, and desire to improve by working together on goals and current challenges (Börü, 2018; Makgato & Mudzanani, 2019). In addition, when an administrator exhibited transformational leadership, teachers were more committed to supporting the mission and vision of the school, and engagement was increased (Eliophotou-Menon & Ioannouz, 2016; McCarley, Peters, & Decman, 2016).

Kent (1999) added to previous research on transformational leadership in schools and focused on the difference between leading and managing subcategories of transformational leadership that could be used across multiple sectors (Bass, 1985; Bass & Avolio, 1994; Kotter, 2017; Kouzes & Posner, 2018). Leaders in schools have used Kent's research to improve leadership dispositions (Kent, 1999, 2004; Kent et al., 2001). Kent believed leadership should be researched in two approaches, leading and managing, and he described how these ideas were connected (Kent, 2005). The Kent et al. (2001) research focused on five categories that described transformational leadership that led to the Leadership Behavior Inventory (LBI). The LBI was given to subordinates who were asked to describe their leader in five categories: (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition. The five factors assessed in the LBI are described below.

Visualizing Greatness. This refers to having a sense of direction and a clear sense of the future while effectively communicating the vision to others (Kent, 2004).

Inspiring enthusiasm and motivation in the organization's future exemplify this characteristic (Kent, 2004). Motivation has been linked to high levels of collaboration, so leaders must motivate and inspire within the organization (Kent, 2004; Lai, DiCerbo, & Foltz, 2017). Leaders high in this factor have a strong vision of where they want the organization to go. They communicate in a way that excites, energizes, and encourages others to see the vision (Kent, 2005).

A shared vision that is exciting and personal inspires people to achieve more for individual and team goals while allowing the creative process to create team energy towards renewed success (Senge, 2006). Establishing direction and attention through visioning promotes positive results similar to the approaches of inspiration and vision casting (Kotter, 2017; Kouzes & Posner, 2017). These are contingent upon a leader's abilities related to solid communication, setting goals, competence, and motivation (Kotter, 2017; Kouzes et al., 2017). Bolman and Deal's (2017) human resource frame also found that employees feel significance when an employee's talent is utilized effectively.

Relationship building is vital for leaders who inspire a vision while thinking positively about the organization's future. This theme of Visualizing Greatness around leadership was also found in Bass and Avolio's (1994) transformational research but was recognized as Inspirational Motivation. A positive school climate and teacher morale were associated with inspirational motivation in the school setting (Fauza, 2020). Didin, Basri, Rusdi, and Samad (2014) surveyed 13 principals and 454 teachers, finding that principals who displayed inspirational motivation and intellectual stimulation characteristics led schools to higher teacher performance and job satisfaction. Similarly,

Allen et al. (2015) collected data from elementary school principals and teachers in a correlational study to assess the connection between school climate and reading and math achievement. The findings indicated a positive correlational between inspirational motivation and school climate.

Encouraging others to take part in visionary thinking and implementing a shared vision was also an essential leadership element in building a successful learning organization (Senge, 2006). Transformational leaders who focus on personal goals help attain the vision of the organization. Covey (2019) stated that beginning with the end in mind allows leaders to envision what they want for the future so that they can work and plan towards these goals. In 2020, confident leaders with a strong vision to tackle disruption under challenging situations were described as transformational game-changers (Duignan, 2020; Stewart, 2020). Leaders are sought after that have courage and vision (Odgers Berndston, 2020). Kent's first element of the LBI, Visualizing Greatness, denotes the leader's importance in facilitating the collaborative process of creating a shared vision for the organization. However, he further described the connection of Care and Recognition to creating the conditions for the shared vision to be realized (Kent, 2004).

Care and Recognition. Care and Recognition occur when the leader expresses attention to team success or victory. Kent (1999, 2004) stated that leaders with high Care and Recognition pay attention to people's concerns and what they want to do in their future. Leaders and principals who exemplify this are aware of the staff and students' needs. The commitment to the organization's goals is celebrated through Care and Recognition (Malik, Javed, & Hassan, 2017). Leaders who practice this trait are full of

praise and gratitude for hard work and effort, feedback, and recognition for hard work and effort (Kent, 2005). Transformational leaders who practice this quality also show many characteristics of servant leadership, with attributes of empathy, listening, awareness, and the ability to grow people through feedback (Alqatawenh, 2018; Greenleaf, 2015; Tarallo, 2021; Taylor, 2021). In a synthesis of over 800 meta-analyses research studies, targeted and timely feedback has a high effect size for achievement (Hattie & Clarke, 2018). The amount of trust built within impacts the culture of feedback. Building relationships with care and recognition is an integral part of delivering and receiving meaningful feedback (Hattie, 2017; Marzano et al., 2019). When a culture of feedback is encouraged, trust begins to grow. Covey's (2020) high trust behaviors are embedded within formal and informal feedback systems that allow for learning, growing, and renewing oneself. Getting better in schools through feedback and trust promotes open communication and shared goals. The balance of high expectations and a culture of feedback is Care and Recognition. This culture of feedback is exemplified in Rutherford's (2016) "The Artisan Leader." This leader is described as giving regular feedback that improves teaching and learning on an ongoing basis.

In 2020, leaders with collaborative relationships with colleagues were considered more successful (Stewart, 2020). Bolman and Deal (2017) similarly asserted that quality of Care and Recognition is found through positive and open communication in the human resource frame with common goals, advocacy, mutual influence, and open communication. Leaders should communicate openly and honestly, assert beliefs and principles, support, advocate, and investigate issues carefully (Bolman & Deal, 2017). Leaders who invest in their employees are more likely to gain trust, inspire creativity, and

empower personal growth (Senge, 2006). Leaders can collaborate more effectively when trust is established and emotions are predictable.

Communicating for Meaning. Communicating for Meaning between leader and follower is a crucial part of transformational leadership (Bass, 1985; Bass & Avolio, 2004; Burns, 1978). Communicating for Meaning refers to the leader's communication style. In particular, the leader can make sense of and relate ideas to others. Time is devoted to sharing the message's importance and discussing ideas, beliefs, and values. Leaders who focus on the why behind decision-making and communicate its values are perceived as more effective (Kent, 1999, 2004; Kent et al., 2001). Leaders high in this factor communicate with people with more than surface-level issues.

Communicating for Meaning described effective interactions from a leader and the qualities utilized to achieve this practice (Kent, 1999, 2004; Kent et al., 2001). The rates the leader used when communicating allowed employees to gain deep understanding and value. A leader who communicates for meaning focuses on finding solutions, improving strategy, and achieving positive results to make changes. In a case study of Midwest principals by Hollingworth, Olsen, Asikin-Garmager, and Winn (2018), researchers found that school leaders who communicated effectively and precisely created change associated with trusting relationships. Kotter (2017) comparably emphasized that change is achieved, expressly, by challenging processes, identifying barriers, and assisting in clearing the path to motivate others to overcome difficulties. Kotter further identified eight accelerators contributing to transformational change and communicating for meaning. The accelerators included creating a sense of urgency, forming a guiding coalition of stakeholders, enlisting a volunteer army, removing

barriers, generating short-term wins, sustaining acceleration, and making change contribute to communicating meaning. Creating a sense of urgency and enlisting a volunteer army assists in communicating the immediate need to act (Kotter, 2017). Building a guiding coalition elicits the help of an influential group of people to help plan and communicate. Communicating the strategic vision allows buy-in and trust to be established (Kent et al., 2001; Kotter, 2017). Removing barriers allows for team success and short-term wins. This must be communicated often to sustain acceleration and institute change (Kotter, 2017). Follow-through is associated with a positive culture, and the leader's perception is essential when communicating effectively.

Perception is essential and allows the leader to seek first to understand while communicating with employees. Similarly, it also provides for what Covey (2020) called ethos or personal credibility. One way you become more credible and build trust is through effective communication. By inspiring trust, your followers begin to develop trust with the leader. When trust is present in the school culture, a sense of commitment, influence, and empowerment is present (Covey, 2020; Kotter, 2017; Kouzes et al., 2017). Communicating for Meaning is displayed through proactive and confident leaders that communicate and collaborate at high levels to create a culture of innovation (Covey, 2019; Odgers Berndston, 2020; Stewart, 2020). Leaders that utilize communication for meaning will create an environment where teaching, learning, celebrating, and proactivity are expected.

Empowering the We. In 2020, research supported by Harvard Business found that 15% of followers believed that their leader could successfully manage disruption. Empowering others to help manage disruption could assist with the current challenges

leaders face today (Odgers Berndston, 2020). Empowering the We is outlined by behaviors aligned with creating a team; fostering collaboration; engaging team members to take ownership; empowerment; and involvement in decision making; and identifying with value to the betterment of the collective whole (Kent, 1999, 2004). The theme of unity is interwoven with this approach. Empowering the We differs from Visualizing Greatness only because Empowering the We is focused on the personal meaning or the successes and the team. Followers of this type of leader are appreciated and celebrated by the team. Similar to Visualizing Greatness, leaders share power and allow others to act while promoting teamwork and collaboration (Kent, 2004). With this model, followers are allowed to make decisions and are encouraged to commit at the "we" level to promote team success and build culture.

Other leadership theories have similar themes to Empowering the We were aligning people (Kotter, 2017), Individual Consideration (Bass & Avolio, 1994), Enabling Others to Act (Kouzes & Posner, 2017), developing employees (Leithwood & Jantzi, 2006), and distributed leadership (Elmore, 2000). This research supports transformational leadership through team cohesiveness, growth, and collaboration. Kotter (2017) described leadership in four categories: establishing direction, aligning people, motivating and inspiring, and highlighting long-term successes. With each of these behaviors, leaders empower others to learn, grow, and achieve the organization's vision entirely. Senge (2006) echoed this research detailing personal mastery as a path to successful team learning. The individual is continually working on their destiny of personal mastery (Senge, 2006), which will help the organization fulfill its vision.

Organizations must help individuals on this journey of personal mastery or consequences ensue.

The tenants of Empowering the We were supported by Kotter (2017) through empowerment paired with competence, enjoyment, and the family mentality. Collaboration allows brainstorming and dialogue to provide experiences, mental models, and guidance for the organization's vision (Bloomberg & Pitchford, 2017; Kotter, 2017; Marzano et al., 2019; Senge, 2006). Effective leadership fosters collaboration by cultivating a trusting environment and confident, self-efficacious relationships (Bloomberg & Pitchford, 2017; Eliophotou-Menon & Ioannouz, 2016; Kouzes et al., 2017). Graham (2016) completed a 3-year project called Project Aristotle around team learning and collaboration. This research found that collaboration yielded the most powerful results for deep and innovative thinking when safety, dependability, structure, meaning, and impact were valued by leaders (Graham, 2016; Martini, 2018). This is connected to Allen et al. (2015), who found a significant positive correlation between transformational leadership and one of the seven dimensions of school climate, collaboration. Leaders who Empower the We will carefully examine and execute the team's strengths to provide growth-provoking opportunities through solid collaborative efforts. Influential leaders also care about group interests (Eliophotou-Menon & Ioannouz, 2016; Kent, 1999, 2004).

Transformational leaders who Empower the We utilize distributive leadership to empower others to work together with a clear vision, ongoing systems of support, and continuous improvement to make a systemic change (Alatawi, 2017). Elmore's (2000) distributed leadership called for the leader to recognize individual strength and create

opportunities for collaboration. Elmore further emphasized that distributive leadership is about enhancing the skills and knowledge of people in the organization, creating a shared culture of expectations around using these skills and expertise, and holding individuals accountable for their contributions to the collective result. Researchers wondered if one leadership style is best suited for continuous improvement. Pietsch and Tulowitzki (2017) investigated leadership styles and the instructional practices of over 3,000 teachers in Germany. The combination of leadership styles, like distributive leadership and transformational leadership, can influence complex instructional strategies. Continuous improvement as learning organizations is based on distributive leadership and collaboration (Philpott & Oates, 2017).

Distributive leadership and Empowering the We foster collective efficacy through shared influence and collaboration (Bloomberg & Pitchford, 2017; R.D. Goddard, Skrla, & Salloum, 2017; Hattie, 2017). In research by Bloomberg and Pitchford (2017), researchers found educators high in collective teacher efficacy believe in the power of collective thought and action through collaboration. This type of educator Empowers the We by believing they are stronger as a team and sees the collaborative group as responsible for challenges (Bloomberg & Pitchford, 2017; Damanik & Aldridge, 2017). Collaboration and learning together improve teacher practice by idea-generating and creating mastery moments. These mastery moments strengthen teacher collective teacher efficacy (Donohoo, Hattie, & Eells, 2018; R.D. Goddard et al., 2017; Hattie, 2017). High levels of teacher self-efficacy will develop through effective collaboration in schools (Thomas, Tuytens, Devos, Kelchtermans, & Vanderlinde, 2020; Top, Abdullah, & Faraj,

2020). Empowering the We emphasizes the importance of collaborating with others for the organization's success (Darling-Hammond, Burns, et al., 2017).

The principal's involvement is essential to the success of the collaborative culture. When a principal prioritizes efforts to support teachers in collaboration, teachers overcome barriers and influence students in the classroom at more adequate levels (R.D. Goddard et al., 2017; Lee & Kuo, 2019). Transformational leaders that are successful focus on collaborative relationships, connections, and defining reality (Sun & Henderson, 2017). Transformational leadership will "unlock the potential in every individual, and therefore diversify within the organization, and optimizes outcomes for a range of stakeholders" (Stewart, 2020, p. 1). School principals that possess transformational leadership qualities influence change and develop collaboration structures in schools.

Collaboration, a critical 21st-century skill, needs to be emulated by teachers and their colleagues. Leithwood, Day, Sammons, Harris, and Hopkins (2006) developed a leadership model that included building vision, encouraging collaborative goals, providing individualized support, creating intellectual stimulation, building strong school culture, and establishing collaborative structures that embrace feedback and change. Setting direction, redesigning the organization, developing people, and managing the instructional program were integral roles for transformational leaders to emulate in schools (Leithwood et al., 2006; Leithwood & Jantzi, 2006). Instructional programs that included collaborative structures and promoted a growth mindset for change best supported the everchanging needs of students (Caniëls, Semeijn, & Renders, 2018). Kotter (2017) asserted that leading change was accelerated through a guiding coalition

that collaboratively developed and communicated a change vision, which created the conditions for greater buy-in from other volunteers.

Principals are understood to be critical actors in improving teaching and learning. When principals model desirable behaviors, it clarifies how teachers and, in turn, students should act in the classroom (Marzano et al., 2019). Administrators who focus on improving teacher practice may positively impact teacher performance (Zalaznick, 2018). Principals who build a collaborative culture and model quality teaching and learning accelerate teachers' capacity to improve instruction (McCarley et al., 2016). Collaboration is an essential part of restructuring learning. What school leaders intentionally model creates learning environments where these dispositions for the future are expected in the classroom (McCarley et al., 2016). As leadership effectiveness is related to the behaviors presented by the leader, it is essential to examine how school principals can model collaborative behaviors for teachers to utilize with students in the classroom and further prepare students for future endeavors (Eliophotou-Menon & Ioannouz, 2016).

Teacher collaboration in schools. Success lies in the critical nature of collaboration and the strength of believing that together, administrators, faculty, and students can accomplish great things (Donohoo et al., 2018, p. 44). Collaboration in 2021 is more important than ever. Educators and policymakers look for ways to make change turn to professional learning to answer school improvement. Professional education is an effective way to influence teacher knowledge and practice and is directly associated with collaboration (Darling-Hammond, Burns, et al., 2017). Teacher collaboration is a crucial

factor in driving school improvement and teacher professional learning (Darling-Hammond et al., 2018).

Hattie (2017) stated the following:

> "We must stop allowing teachers to work alone, behind closed doors, and in isolation in the staff rooms and instead shift to a professional ethic that emphasizes collaboration. We need communities within and across schools that work collaboratively to diagnose what teachers need to do, plan programs and teaching interventions and evaluate the success of interventions." (p. 79)

Fullan and Hargreaves (2016) studied professional learning and development as part of Learning Forward, a professional learning association committed to leveraging the power of professional learning and change. Hargreaves and O'Connor (2018) described collaborative professionalism as "how teachers and other educators transform teaching and learning together to work with all students to develop fulfilling lives of meaning, purpose, and success" (p. 3). The collaborative culture of professionalism is essential for professional learning and improvement and the confidence of teachers.

Collaboration allows for structured communication for problem-solving and learning with peers leading to more substantial teacher effectiveness (Darling-Hammond et al., 2018). Collaboration, in a professional learning community, is a process in which teachers work together to impact their classroom practice to lead to better results for their students, team, and the school. A professional learning community is a process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve. DuFour, DuFour, Eaker, Many, and Mattos (2016) asserted collaborative teams are essential to the improvement

process in schools. The key to improving learning for students is continuous job-embedded learning for educators (DuFour et al., 2016; Fisher, Frey, & Hattie, 2020).

When teachers work together on collaborative teams, they improve their practice in two important ways. According to DuFour et al. (2016), "First, they sharpen their pedagogy by sharing specific instructional strategies for teaching more effectively. Second, they deepen their content knowledge by identifying the specific standards students must master. In other words, when teachers work together, they become better teachers" (p. 83).

DuFour et al. (2016) found the main facets of a professional learning community included collaborative teams, a guaranteed and viable curriculum, and the implementation of formative assessment. Further, a school that is genuinely implementing a professional learning community will focus on the following four corollary questions: (a) What do we want our students to learn? (b) How will we know if they have learned it? (c) What will we do if they have not learned it? and (d) How will we provide extended learning opportunities for students who have mastered the content.

To synergize and communicate more effectively on collaborative teams, Garmston, Wellman, Dolcemascolo, and McKanders (2013) created norms for collaboration. Researchers believed that the use of seven norms increased collaboration through coherence and commitment. The norms included (a) pausing, (b) paraphrasing, (c) posing questions, (d) putting ideas on the table, (e) providing data, (f) paying attention to self and others, and (g) presuming positive intentions. Pausing was described as allowing time for reflection, communication, and discussion. Paraphrasing included sentence starters and active listening. Posing questions allowed for exploration of

thinking. Putting ideas on the table provided time for discussion. Providing data was an expectation of collaborative endeavors. Paying attention to self and others was described when team members were aware of the team members' roles and dispositions. Finally, presuming positive intentions were described as assuming others are positive and honest.

> Clearly, this screams for leadership in the school to develop an organizational climate, create school norms about collaboration, and create the time and direction to enable teachers in the school to share in this sense of confidence and have expectations to make the difference. (Hattie & Zierer, 2019, p. 26)

The presence of a professional learning community, defined as a process in which teachers collaborate to analyze and improve classroom practice, also promoted collaboration. Reinhorn, Johnson, and Simon (2017) found that five factors influenced successful collaboration in schools. The factors included having a clear purpose, time set aside, administrator engagement, trained teacher leaders, and an integrated approach to teacher support (Reinhorn et al., 2017). Similarly, Didin et al. (2014) research found that the empowerment of teachers leads to motivation and trust. Schools that do not have trust do not influence student learning due to the lack of synergy and collaboration.

Researchers have found that a high-performing system of professional learning practices is utilized in schools because of their impact on students (Bambrick-Santoyo, 2018; Darling-Hammond et al., 2018; Hattie & Zierer, 2019). Similar findings were detailed in a mixed-methods study on education systems that were considered high performing (Darling-Hammond et al., 2018). Researchers reviewed 35 studies that found a positive link to professional development, instructional practice, and student outcomes. Researchers found effective professional learning is needed to help teachers improve

instruction. Researchers identified collaboration as an essential part of learning by creating opportunities to share ideas and creating communities that positively change the learning environment (Darling-Hammond et al., 2018).

Collective teacher efficacy is nurtured through collaboration (Donohoo et al., 2018; Fullan & Hargreaves, 2016; R.D. Goddard et al., 2017; Hattie, 2017). Collective efficacy is defined as a team's belief to accomplish a goal through collaborative work (Fullan & Hargreaves, 2016). "Collective efficacy, the shared belief among teachers that they can make a positive difference for all their students together, has one of the largest effect sizes of any improvement strategy and intervention" (Fullan & Hargreaves, 2016, p. 14). Hattie (2017) ranked collective efficacy as one of the most influential factors in student achievement. In a study of 16 schools consisting of 310 surveys, researchers investigated the relationship between professional learning communities and teacher collective efficacy using structural equation modeling (Voelkel & Chrispeels, 2017). The results asserted higher functioning professional learning communities predict higher levels of collective teacher efficacy. In similar research, 1,623 teachers participated in a study to examine connections between collaboration, differentiated instruction, and teacher efficacy. The findings were that teachers who experience mastery moments through collaboration strengthened differentiated instruction and collective teacher efficacy (Y. Goddard & Kim, 2018). Key findings in both studies found that principals needed to be more active in facilitating professional learning and collaboration (Valckx, Vanderlinde, & Devos, 2020). Further, research by Khumalo (2019) found that teachers were more committed to growing in their profession when the leader possessed transformational leadership and modeled desired expectations.

Researchers agree that collaboration is how schools and teachers get better (Bloomberg & Pitchford, 2017; Darling-Hammond et al., 2018). Teacher collaboration allows for positive change in student learning through the purposeful sharing of experience, knowledge, and ideas. When teachers work together, research supports that student outcomes can improve (Darling-Hammond et al., 2018).

The Importance of 21st -Century Learning for Today's Students

Principals that are considered transformational create conditions for deep learning and collaboration. This creates opportunities for teachers to experience their deep professional learning, leading them to value and emulate a similar collaborative condition in their classrooms. The benefits of teacher collaboration can be transferred to students through learning through social interaction and collaboration (Bloomberg & Pitchford, 2017; Darling-Hammond & Cook-Harvey, 2018; Darling-Hammond et al., 2018). Twenty-first-century learning requires sophisticated forms of teaching to develop student competencies, such as deep mastery of challenging content, critical thinking, complex problem-solving, effective communication, self-direction, and collaboration. The skills businesses look for, and the skills students need to acquire to be successful in the 21st century and beyond, are essential topics in today's schools. Steering away from the verbiage 21st-century education promotes, Lucas (2020) argued that needs to shift to embed critical dispositions into every aspect of life and decades to come. Collaboration is an essential disposition because it embeds critical thinking, creativity, and communication, and leads to innovation (Sundberg, 2017).

In the fall of 2019, over 50 million students walked into a public school (National Center for Education Statistics, 2019). Teachers, administrators, and leaders had the duty

of preparing 50.6 million students for a successful future. The quest for 21st-century schools comes from the skills required for future careers (Brown, 2018; Chalkiadaki, 2018; Petrone, 2018; Ross, 2017). Many future jobs will also require 21st-century skills such as collaboration, communication, and problem-solving. A key finding in an international study asserted that collaboration was the top requested competency demanded by employers (Sundberg, 2017).

In the State of the Union address on January 29, 2014, President Obama summarized that jobs in our rapidly changing economy require higher order skills such as problem-solving and critical thinking. President Obama suggested that we prepare tomorrow's workforce and find new ways to measure how kids think. The skills businesses look for, and the skills students need to acquire to be successful in the 21st century and beyond, are essential topics in today's schools. Former President Trump also stated he was committed to preparing workers for the jobs of today and tomorrow through his attempt to reauthorize the Perkin Career and Technical Education Act, which reemphasized federal support for technical education.

The quest for 21st-century schools comes from the skills required for future careers. Many future jobs will also require 21st-century skills such as collaboration, communication, and problem-solving (Sundberg, 2017). School principals are second among school-related factors that contribute to students' learning in schools (Hattie & Clarke, 2018). The collaborative culture a principal creates could impact how prepared students are to enter the workforce. Although curriculum and programming address 21st-century skills, changes are not evident in the 21st century yet (Sundberg, 2017).

Battelle for Kids was previously known as the Partnership for 21st-Century learning and was developed in 2002 as a coalition uniting many stakeholders, including educators, business leaders, and policy makers. The goal of this coalition was to initiate a conversation quickly around skills needed for the 21st century that students should be learning in schools across the nation. Other countries are capitalizing on turning schools into hotbeds of creativity and innovation (Kay, 2017). As a result, schools in the United States quickly looked for guidance on successfully teaching students soft skills or learning and innovation skills. Battelle for Kids sought to answer this endeavor as a collaborative initiative with school leaders, policy makers, and critical businesses. All people need 21st-century skills to increase their employment (Alshare & Sewailem, 2018; Sundberg, 2017).

The mission of Battelle for Kids (2020) is to realize the power and promise of 21st century learning for every student in early learning, in school, and beyond school across the country and around the globe. This coalition has identified a set of skills that are essential for success in the 21st century. The framework consists of four main categories: Key Subjects and Content Knowledge, Learning and Innovation Skills, Information Media and Technology Skills, and Life and Career Skills. Encompassed within the 21st century, learning and innovation skills are defined as key dispositions such as critical thinking, creativity, collaboration, and communication (Battelle for Kids, 2020). According to Battelle for Kids, this model of 21st-century skills is one of the most accepted and implemented representations, with hundreds of schools adopting and integrating 21st-century curriculum. The model includes key subjects and 21st-century themes with four main categories. The categories were key subjects and content

knowledge, learning and innovation skills, information, media, technology skills, and life in career skills. The learning and innovation skills focused on critical thinking, creativity, communication, and collaboration (Battelle for Kids, 2019).

Companies continue to seek employees with communication, creativity, critical thinking, and collaboration (Brown, 2018; Chalkiadaki, 2018; Petrone, 2018; Ross, 2017). In the United States, 44% of business executives are looking for employers with these skills (Griffin et al., 2017; Sundberg, 2017). Yet, by 2025, it is also estimated that there will be vacancies of twenty million jobs without qualified people to fill them. Battelle for Kids (2019) is working to ensure that every child experience 21st-century learning.

Although models exist to address 21st-century learning competencies, researchers found that 21st-century skills are addressed in high-achieving elementary schools to some degree but are mostly taught unintentionally and occasionally (Sundberg, 2017). Schools are purposely looking for ways to prepare their students and teach these skills. The next section of this literature review will focus specifically on the Battelle for Kids 21st-century skills, including critical thinking, creativity, communication, and collaboration.

Critical Thinking

Kay (2010) stated, "As a manager at Apple told me, any employee who needs to be managed is no longer employable" (p. xxi). Researchers summarized that the most prosperous employees in the future would be those who are used to acting and thinking in a business manner (Sundberg, 2017; Warrick, 2018). Thus, schools are faced with the task of teaching students to think critically and solve problems. Researchers have theorized critical thinking vastly over the past century. Critical thinking is commonly

referred to as a systematic way of thinking and includes reflective, evaluative, analytical, and deliberate skills (Dilley, Kaufman, Kennedy, & Plucker, 2015; Umrzokova & Pardaeva, 2020).

John Dewey was the first well-known researcher to define critical thinking. Dewey discussed productive thinking, theorizing decision making, productive thinking, and self-reflection. Dewey's critical thinking model is similar to thinking about thinking or metacognition (Dilley et al., 2015). Metacognitive strategies allow students to become cognizant of their strengths and weaknesses and how to develop knowledge.

In 1956, Bloom's taxonomy was developed, and used as a compass for critical thinking in education for 60 years. Bloom's model included cognitive, affective, and psychomotor areas and believed that a learner must master basic skills before moving on to higher level thinking (Dilley et al., 2015). The seven categories of critical thinking included knowledge building, comprehension, application, analysis, synthesis, evaluation, and creating. Knowledge building had to recall basic information, while the comprehension level included explaining ideas or concepts. The application level allowed the learner to use information in new situations. Analysis level work is based upon drawing connections, comparing, and experimenting. For the evaluate level, the learner is justifying or critiquing ideas. Finally, the highest level of critical thinking lies within the creation level. Students are producing new or original work.

Nearing the 21st century, Norman Webb (2002) developed the depth of knowledge to increase cognitive complexity, standardized assessments, and acknowledge college and career readiness standards depth of knowledge was designed to show how students should know and understand their learning. In today's classroom, this is called critical

thinking. Webb theorized four levels of Depth of Knowledge. Level 1 tasks, recall and reproduction, entail recall of facts or memorization of simple procedures. This level does not require cognitive tasks. Level 2 tasks involve skills and concepts. Students at this level have more than one intellectual step. Examples included summarizing or predicting. Level 3 contains strategic thinking. Level three tasks think abstractly to justify and solve nonroutine problems. Level 4 tasks are categorized as extended thinking. Finally, level four tasks require critical thinking as students synthesize, design, and interpret (Webb, 2002).

After thousands of qualitative observations, researchers designed a task rubric to expand critical thinking through powerful task design (Antonetti & Stice, 2018). With powerful task design, a) cognitive demand, b) thinking strategies, and c) engaging qualities were evaluated. Cognitive demand was described as the minimal thinking a test will require of the learner. Thinking strategies included visible evidence of personal response. Engaging qualities had the conditions that produced energy and enthusiasm. Together, these foci provided a continuum rubric for teachers to utilize when developing lessons. The goal would be to elicit critical thinking experiences that cross the rigor divide by evaluating the task assigned to students. Similar research from Hattie and Zierer (2019) asserted that learning could be accelerated when a learner experiences cognitive conflict, takes control of their thinking, and carefully collaborates with others. Principals can encourage teachers to design rigorous tasks through collaboration around the tasks teachers assign and making learning visible (Ainsworth & Donovan, 2019; Antonetti & Stice, 2018; Hattie, 2017).

In *What We Know About Critical Thinking*, Dilley et al. (2015) concluded that explicit consideration to critical thinking instruction should be a significant part of elementary education. Effective critical thinking is described as collecting, assessing, and analyzing relevant information; reasoning effectively; using systems thinking; making sound judgments and decisions; identifying, defining, and solving authentic problems; and reflecting critically on learning experiences, processes, and solutions (Battelle for Kids, 2020).

Battelle for Kids (2020) recommends that skills of the critical thinking nature be taught explicitly by the instructor. The school should build a shared vision to include critical thinking within teaching and learning (Battelle for Kids, 2019). Formative assessment should be encouraged, and assessment should be completed through the context of the real-world application (Battelle for Kids, 2020). Students should be encouraged to show understanding of problems and design solutions with the audience in mind. Students should categorize information, assess evidence, cultivate questions, and determine what additional information would be needed to answer questions. Critical thinkers use inductive reasoning, coming up with reasonable assumptions from observations and understandings, and deductive reasoning. Deductive reasoning provides precise and distinctive perspectives while demonstrating knowledge of a topic (Battelle for Kids, 2020).

Critical thinking skills are valuable for all occupations and are rated as a top disposition that employees look for in the future. Schools should embed critical thinking within the culture and provide learning spaces that allow opportunities to be creative or innovative by generating ideas and thinking critically to evaluate or judge ideas (Battelle

for Kids, 2020). Visible learning occurs when teachers see learning through the learner's eyes. Principals are encouraged to devote time to professional education, explicitly teaching and assessing tasks assigned to students around critical thinking (Antonetti & Stice, 2018; Hattie & Zierer, 2019). To remain competitive globally, critical thinking must be a priority and taught at all ages (Battelle for Kids, 2020; Matei, 2018).

Creativity and Innovation

Creativity is a skill needed for 21st-century employees and should be a skill that is just as important as literacy (Meinel & Voigt, 2017; Petrone, 2018; Resnick & Robinson, 2017). Battelle for Kids (2020) described creativity in three components: thinking creatively, working creatively with others, and implementing innovations. Thinking creatively encompasses brainstorming, creating new ideas, and elaborating, refining, and analyzing ideas to improve (Battelle for Kids, 2020). Working creatively with others includes developing and following through with new ideas, being open to other's ideas, applying feedback, being original, and possessing a growth mindset (Battelle for Kids, 2020; Dweck, 2017; Haimovitz & Dweck, 2017; Holdsworth & Maynes, 2017; Ng, 2018; Zeng, Chen, Cheung, & Peng, 2019).

The third category to define creativity encompasses a mindset of implementing innovations (Battelle for Kids, 2020). This includes acting on creative ideas to make a valuable contribution. In *What We Know About Creativity*, Plucker, Kaufman, and Beghetto (2015) asserted that creativity can be improved by establishing learning environments that support creative endeavors. This can be achieved by thinking creatively though brainstorming, creating, elaborating, analyzing, and evaluating ideas while being open to other points of view. Researchers agreed finding the best way to

build creativity is to exercise the mental muscles of persistence, resilience, and criticism. In addition, creativity is enhanced through collaboration and communication with others. Battelle for Kids (2019) described thinking creativity as using a wide range of idea creation.

Models exist that claim to help acquire this skill, but a model has yet to be established with scientific consensus, as creativity is hard to define (Plucker et al., 2015). Plucker et al. (2015) defined creativity as "the interaction among aptitude process, and the environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context" (p. 90). Other models have been established that seek to clarify what creativity looks like in individuals. Research has shown that there is less activity in the frontal lobe in people that are creative (Plucker et al., 2015).

Researchers suggest providing professional development and assert creativity and innovation can be taught (Matei, 2018; Shafi, Zoya, Lei, Song, & Sarker, 2020). Teaching students to get unstuck, think outside the box, and think through difficult situations should be a priority in classrooms of the 21st century (Matei, 2018; Sparrow, 2018). Dweck (2017) found that effort plays in developing skills, knowledge, and solutions. The pattern of learning from mistakes allows others to learn from their mistakes and reach optimal performance.

Creativity is a skill that future employers look for to be innovative and maintain competitiveness in markets of the 21st century. Creativity and technology are fundamental in today's classroom. Policymakers must find ways to allow schools to prioritize creativity and lesson demands on standardized assessments and budget cuts. Principals

are challenged to create a shared vision for creativity, supporting teachers to incorporate it into portfolios, and assessing creative development in portfolios that can help with future situations (Dilley et al., 2015). The school principal is essential in encouraging learning environments where creativity is expected. Transformational principals will help develop self-efficacious teachers who engage in creative experiences and foster student creativity (Matei, 2018).

Communication

Communication is seen as one of the most integral parts employers can possess in today's workforce. Employers must have these skills so that leaders avoid hiring people who do not have competent communication skills (J.W. Campbell, 2018). Communication skills are mainly interpreted as interpersonal, verbal, nonverbal, written, and listening communication skills. Battelle for Kids (2020) described communication as engaging in conversations and discussions, using 21st-century communication tools, listening, communicating in diverse environments, delivering oral presentations, and self-regulation and reflection.

> Battelle for Kids (2020) further elaborated communication as
>
> the ability to articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts; listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions; use communication for a range of purposes (e.g., to inform, instruct, motivate, and persuade); use multiple media and technologies, and know-how to assess the impact and their effectiveness as a priority;

communicate effectively in diverse environments (including multilingual and multicultural). (p. 14)

Researchers have found that communication skills can be taught (Mizrak, Gurbuz, Belli, Kurudirek, & Bayraktaroglu, 2017). Schools are teaching practical communication skills in classrooms today (Dilley et al., 2015). In addition, researchers have found that communication skills are needed in the workforce and valued more than other skills for employability (Hasanah & Malik, 2020). It was also noted that these skills are essential to team success to synergize around common goals.

Covey (2020) found that communication is one of the essential life skills. Effective oral and written communication skills are vital for today's learners. Technology has changed how today's learner communicates as students spend six to eight hours a day in front of a screen (Tang, Darlington, Ma, & Haines, 2018).

Battelle for Kids (2020) is intended to improve the communication skills of K-12 students for their future occupations. Verbal communication is referred to as information exchanged with words, speeches, and presentations. The communicator is known for sharing thoughts through words. Written communication ensures that everyone has the same message and is clear, concise, correct, and complete. Oral communication refers to the tone, voice, or facial expressions of the person. Nonverbal communication is communicating without words. Employers describe nonverbal communication as essential in the job. Chiruguru (2020) found that communication in the 21st century is summarized by stating that communication will provide information, education, and entertainment in new ways through social media and online endeavors. Kids are spending

hours engaging on screens with each other but are lacking in working on interpersonal skills.

In today's classroom, communication occurs seamlessly as students collaborate digitally across multiple mediums and applications (Fisher et al., 2020). The learners of the 21st century encompass a growth mindset and work together. As noted in the social learning theory, learning occurs through observation, imitation, and modeling (Bandura, 1977; Marzano et al., 2019). Therefore, students can grow collaboratively, experiencing the success and failures of others.

Through explicit practice and experience, students will learn how to communicate with others. For students to gain these skills, it is essential that teachers and principals model effective communication and allow students to practice (Battelle for Kids, 2020). Kent's (2004) trait of Visualizing Greatness exemplifies the leader's role in modeling effective communication by having a sense of direction and a clear sense of the future. Vision casting is essential through strong communication, goals, and motivation (Hoppe, 2021; Kent, 2004; Kouzes et al., 2017).

Collaboration

Creativity, critical thinking, and communication are all enhanced with collaboration, making it one of the most essential skills for the future, and thus the focus for this research. Battelle for Kids (2020) defined collaboration as the ability to work effectively and respectfully with diverse teams; exercise flexibility and willingness to help make necessary compromises to accomplish a common goal; assume shared

responsibility for collaborative work; and value the individual contributions made by each team member. Battelle for Kids is a walking example of strong collaboration, representing thousands of businesses that collaboratively created a framework to improve learning in the 21st century through the coalition that was formerly known as the Partnership for 21st Century Learning. Collaboration is an essential skill because it can enhance other areas of learning like critical thinking, creativity, and communication (Battelle for Kids, 2020; Fisher, Frey, Quaglia, Smith, & Lande, 2018).

The basic definition of collaboration is the ability to work effectively and respectfully with diverse teams, exercise flexibility to help make necessary compromises to accomplish a goal, assume shared responsibility for collaborative work, value individual contributions made by each team member, and work productively in teams for periods to develop high-quality products (Battelle for Kids, 2020). Battelle for Kids (2020) expanded on each area to describe effective collaboration in the 21st century. The areas of focus within collaboration began with leadership and initiative. To exemplify this focus area of collaboration, the student will understand and perform their role on the team. Each member of the team's role will be tailored and adequately matched to the team's needs. The learner will know the team's goal and divide the work accordingly while providing the mission and vision for the work. A timeline of progress is regularly assessed, and followers and leaders know the appropriate time to step. If the project is headed in a way that does not fit the mission or vision of the group, the group members know how to challenge the mission (Battelle for Kids, 2020).

The second focus area of collaboration was cooperation. The group members can compromise while remaining positive through verbal and nonverbal cues. As a result,

consensus can be reached within the team, and compromises are made within the group by being cognizant of each member of the group (Battelle for Kids, 2020).

The third focus area of collaboration was flexibility. Flexibility allows for the group members to share diverse perspectives. The group members are solution oriented and situationally aware of other group members' thoughts, principles, and feelings. Each team member is respected and valued (Battelle for Kids, 2020).

The fourth area of focus within collaboration was responsibility and productivity. The group members possess positive attitudes and are excited to encourage the group. Work that is submitted is highly ethical and of high quality. Project management allows project monitoring and progress towards collaborative objectives (Battelle for Kids, 2020). The fifth area of focus was responsiveness and self-regulation. Feedback is wanted and effectively received or delivered. The group members are reflective in areas of weakness and strengths. The group members can describe the learning from collaboration (Battelle for Kids, 2020). The final focus area of collaboration is the use of technological tools to assist with collaboration. Tools are appropriately identified and increase productivity to assist with collaboration (Battelle for Kids, 2020). These competencies of collaboration have commonalities with the dispositions of Kent's (2004) transformational leadership.

Visualizing greatness, Empowering the "We," Communicating for Meaning, Managing One's Self, and Care and Recognition are essential dispositions of the transformational leader (Kent, 2004). Collaboration skills are embedded within each of these dispositions, emphasizing the importance of collaborating with others for the organization's success. School leaders can model these traits for students. Most

transformational leadership research focuses on adult leaders or employee and follower relationships. The leader's role in modeling collaboration is by communicating the vision, inspiring enthusiasm and motivation. Motivation has been linked to high levels of collaboration (Börü, 2018; Lai et al., 2017; Pierce, Blanton, & Gould, 2018; Rhoads, Sierra, & Toro, 2018). Leaders also can foster collaboration by creating teacher teams, empowering shared decision-making, and encouraging teachers to commit to the we before me philosophy (Kent, 1999, 2004).

Trust is a crucial component for school collaboration and essential in high-achieving schools (Allen et al., 2015). Trust is also a key component of transformational leadership (Allen et al., 2015; Almarshad, 2017; Almonawer, 2021; Bastari, Eliyana, & Wijayanti, 2020). The amount of trust, openness, and communication within the organization depends on how collaborative the leader is perceived. Thus, collaborative leaders elicit trusting relationships. Quality relationships allow followers and leaders to overcome obstacles and foster group efficacy (Bayraktar & Jiménez, 2020; Li & Liu, 2020; Lyons, 2019). Innovation is encouraged and expected when trust is present within a school culture (Bloomberg & Pitchford, 2017; Cansoy, 2020; Darling-Hammond, 2017; Darling-Hammond et al., 2019). The collaborative conditions promoted within a school established by the principal are similar to conditions needed at the classroom level established by the teacher.

Effective Practice for Engaging Students in Collaboration

In the 20th century and prior, several theories around collaboration existed, yet there was little carryover in working together or collective problem-solving in traditional schools. One early theory involving collaboration was the socio-cultural approach by

Vygotsky (1978). Growth was triggered by cognitive conflict, and social interactions helped facilitate this. The conflict described allowed for students to interact at advanced levels developmentally (Vygotsky, 1978). The work of Vygotsky stablished that learning is rooted in social interaction. Vygotsky's theories are nicknamed the social development theory and rooted in collaboration in the 21st century. Vygotskian collaborative tasks involved skill acquisition, planning, and categorization by emphasizing the development of cognition through social interaction. The zone of proximal development theory stated that students could learn more with the assistance of an adult or a group of peers compared to what the student could accomplish individually (Hattie, 2017; Marzano et al., 2019; Vygotsky, 1978). While individuals are working in their zone of proximal development, they are working on a range of supportive activities that the person cannot yet handle alone but can accomplish by collaborating with capable peers to move through their zone of proximal development. Collaborative dialogues increase their learning and allow the individual to perform independently more successfully. Collaboration while working with a student's zone of proximal development will allow students to progress to new targets (Hattie, 2017; Marzano et al., 2019; Vygotsky, 1978).

As Vygotsky (1978) established, learning is a social endeavor. Classroom collaboration is the ability to work effectively and efficiently with others. The number of people interacting socially to describe collaboration ranges from two to thousands. Solving problems and learning together is the goal of collaboration (Lai et al., 2017; Risko & Bromley, 2020). Although classroom collaboration, by definition, is possible without cooperative learning, teachers rely on telling students to collaborate without using cooperative learning because collaborative tasks must be defined through the lens

of positive interdependence, individual accountability, equal participation, and simultaneous interaction as identified by Kagan (2018). Kagan described that participation is not voluntary with collaborative structures, whereas it may be in weakly designed collaborative tasks. Thus, collaboration may be present without cooperative learning, but collaboration will always be present with Kagan's cooperative learning. Lai et al. (2017) said that collaboration is sometimes distinguished from cooperative learning. "Cooperation is typically accomplished through labor division, with each person responsible for some portion of the problem-solving. On the other hand, collaboration involves participants working together on the same task, rather than in parallel on separate parts of the task" (Lai et al., 2017, p.6). Cooperative learning and collaborative tasks are related, but as Lai et al. stated, the distinction is not clear cut.

Researchers of collaborative learning found that teachers spent most of their time teaching students to get along rather than students successfully collaborating towards a goal (Plucker et al., 2015). Collaborative learning was focused on competitive education, individualist learning, and cooperative learning. Working with peers to achieve learning goals is a principal component of the cooperative learning model, and it has been shown that when peers work together to achieve a common goal, the student "produces higher achievement and greater productivity (than) working competitively or individualistically" (D.W. Johnson & Johnson, 2014, p. 843). Researchers have found that cooperative learning had positive impacts on students (Kagan, 2018).

Researchers had also asserted that lower achieving students benefited when students were able to collaborate during the learning, resulting in higher individual results (Fisher et al., 2020; Hattie, 2017; D.W. Johnson & Johnson, 2014; Kagan, 2018;

Mitchell, Ehren, & Towson, 2020). The sense of belonging and identity are entwined with cognitive development (Shepard, Penuel, & Pellegrino, 2018). When students work together, they achieve at greater levels and report higher levels of happiness (Landon, 2019). Sociocultural approaches promote equity and working together to meet students' needs before, during, and after new learning while gaining authentic experience to contribute to their community at large (Shepard et al., 2018).

Researchers believe that working together should be structured methodically, the groups should remain small, and students should be taught how to work in groups (Hattie, 2017; Marzano et al., 2019). The use of cooperative learning yields value to whole-class instruction and individual work. Kagan (2018) expanded on cooperative learning, embedding multiple structures for collaboration. In classes using Kagan's cooperative learning, structures ensure that engagement occurs on various levels. Students are engaged, collaborating, and in the context of the lesson. Kagan's answer for engagement is known as "PIES" or positive interdependence, individual accountability, equal participation, and simultaneous interaction. According to Kagan, without the presence of PIES, students are completing group work.

Positive interdependence is defined as all students being on the same side where success depends on all group members contributing (Kagan, 2018). Positive interdependence initiates cooperation. Individual accountability, described by Kagan, is when a student is required to perform on their own, someone else must see the student's action, and individual and public performance is required. Equal participation allows each group member to have a time or turn. Simultaneous interaction focuses on the

percent of students interacting at once to assess active engagement. Kagan allowed for active participation while collaborating.

Collaboration has also evolved with technology. Face-to-face interaction has become one means of collaboration, and technology-based collaboration has become more prevalent (Fisher et al., 2020). Battelle for Kids (2020) collaboration should involve a variety of collaborative and noncollaborative experiences. Communication, conflict resolution, problem-solving, decision making, and coordination should be subskills of collaboration (Hattie, 2017; Hollingworth et al., 2018; Lai et al., 2017). Collaboration should be focused on communication and require planning and feedback. Feedback and collaborative conversations should have detailed answers to improve learning. Competition should be avoided, and students should be directed to work together to prevent nonresponsive feedback. Nonresponsive feedback could negatively impact student achievement (Lai et al., 2017).

Researchers asserted that when students work together, student achievement improves (Fisher et al., 2020; Hattie & Anderman, 2020; Hattie & Clarke, 2018; Kagan, 2018). In a descriptive qualitative designed experimental study by Martin, Salvador, Albuquerque, and Silva (2021), 52 participants and 2,304 verbal interventions were analyzed to see the impact of adult mediation and peer collaboration on invented spelling with kindergarten students. The findings suggested dialogue and collaborative learning were needed as a scaffolding strategy to increase achievement. Similarly, a meta-analysis by Kumar (2017) included 2,434 participants and sought to discover the effect of collaborative learning on student achievement. High collaboration and no collaboration were compared to measure the impact of collaborative learning on student achievement.

The analysis found an effect size of .26. The research design was not significant but did suggest that when conditions are established for collaborating, students will perform well.

Research also supports designed collaborative experiences, where collaboration was planned purposefully for students. For example, a meta-analysis by Borokhovski, Bernard, Tamim, Schmid, and Sokolovskaya (2016) compared the impact of designed collaborative conditions and non-designed conditions that result in high levels of student interaction in schools. Results showed that designed collaborative activities, .52, outperformed nondesigned collaborative conditions, .11, for the impact of collaboration on measurements of achievement. A similar case study by Musa and Zulkafly (2017) researched students collaborating virtually to create three-dimensional environments through Minecraft. The study's goal was to compare student learning outcomes on designed collaborative conditions versus contextual treatment groups. The results found that designed experiences outperformed contextual treatments.

Building on empirical evidence from D.W. Johnson & Johnson (2014) supporting cooperative learning improving motivation and student achievement, researchers sought to identify the impact of cooperative learning on marginalized students. In a cluster-randomized trial by Van Ryzin and Roseth (2018), cooperative learning experiences improved academic achievement, bullying, victimization, and stress in a study including 1,460 students. Results were significant for bullying, victimization, and perceived stress. In addition, findings signified that when students work together, student experiences in school are more favorable (Van Ryzin & Roseth, 2018).

Working effectively and efficiently together is an important life skill that all students need to be future-ready (Cansoy, 2020; Novak, 2019). Research shows that

when students work together, achievement improves (Fisher et al., 2020; Hattie, 2017; Hattie & Zierer, 2019; Kagan, 2018). Although curriculum exists that address 21st-century skills in schools, changes are not evident in the 21st-century classroom yet (Sundberg, 2017). School principals are second among school-related factors contributing to what students learn in schools (Hattie, 2017). The collaborative culture a principal creates could impact how prepared students are to enter the workforce. Modeling effective strategies is beneficial when aiming for reform in the classroom (Haug & Mork, 2021). The leader's approach to preparing students must change to reflect 21st-century opportunities and challenges (Novak, 2019). A principal who empowers teachers through transformational leadership creates a school climate that embraces innovation and reform.

Summary

Future employers are looking for employees that are ready to thinking critically, communicate, be creative, and collaborate at high levels (Magana, 2017). The pressure is to create students that compete with other countries who are outperforming students in the United States (Darling-Hamond et al., 2017a). Collaboration is an essential skill that connects individuals to thrive in the 21st century and beyond (Hirsh-Pasek et al., 2020; Magana, 2017). The principal's leadership style or degree of transformational leadership can motivate teachers to achieve goals and foster collaborative decision processes leading to improved self-efficacy. The application of transformational leadership has shown to be effective when restructuring, improving school culture, or morale. Best practices around student collaboration were considered. Research shows that student collaboration improves student outcomes.

In Chapter Three, the researcher describes the methods used in the study. Chapter Four content includes the researcher's findings of the study while Chapter Five includes the researchers study implications and makes recommendations for future research.

CHAPTER THREE

METHODOLOGY

Introduction

Schools are challenged with creating students that employees desire. Placing importance on skills of tomorrow, students must be able to apply knowledge in a future setting by being able to be creative, think critically, communicate, and collaborate with others (Magana, 2017; Wong, Moulds, Browning, Dean, & Priest, 2017). Collaboration connects individuals to communicate, think critically, and be creative in the workplace. Working together is an imperative life skill that all students need to be employable in the future (Cansoy, 2020). School leadership, specifically principals, can emphasize 21st-century skills, such as collaboration, and impact how teachers teach and students learn (Marzano, 2017). When school leaders ask teachers to embrace new teaching strategies, the principal's dispositions are critical (Reinders, 2017). When a school principal empowers teachers through transformational leadership, change and innovation are embraced, creating trusting, collaborative relationships.

The purpose of this correlational study was to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary school principals' leadership traits at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students working together to solve problems or answer questions, working effectively and respectfully in teams to accomplish a common goal, and assuming shared responsibility for completing a task (Hixson et al., 2012). The independent variables— (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e)

Care and Recognition— describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004).

Data were collected to identify if there was a relationship between these behaviors. Multiple regression was then utilized to see if any behaviors could predict collaboration more or less than other behaviors. The researcher examined Missouri public elementary schools with grades K through 6 grades in any capacity. The chapter encompasses research questions, null hypotheses, variables and measurement, setting, research design, instrumentation, procedures, and data analysis.

Research Questions

1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?
2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?
3. What is the relationship between elementary student collaboration in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view?
4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view?

5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?
6. What is the ability of (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey?

Null Hypotheses

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

$H_0$3: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view.

$H_0$4: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view.

$H_0$5: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view.

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

Variables and Measurement

For the purpose of this study, the dependent variable, student collaboration, was operationally defined as students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal, and to assume shared responsibility for completing a task (Hixson et al., 2012). The independent variable, transformational leadership, was operationally defined as when a person engages with others leading to the followers increasing levels of motivation by displaying (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition (Kent, 1999).

Visualizing Greatness refers to having a sense of direction and a clear sense of the future while effectively communicating the vision to others. Vision casting is achieved through strong communication, setting goals, and motivation (Kent, 2004; Kouzes et al., 2017). Visualizing Greatness encourages collaboration, which was the emphasis of this research (Kent, 2004). Empowering the We is outlined by behaviors aligned with creating a team; fostering collaboration, engaging team members to take ownership,

empowerment, and involvement in decision making; and identifying with value to the betterment of the collective whole (Kent, 1999, 2004). Care and recognition occur when the leader expresses attention to team success or victory. Managing one's self happens when leaders have focus, confidence, and energy.

Communicating for meaning refers to the leader's communicating style. In particular, the leader can make sense of and relate ideas to others. The survey in this research measured transformational leadership in elementary principals from the teacher's point of view and student collaboration in the elementary classroom from the teacher's point of view.

Subjects/Participants/Setting

The researcher collected a valid sample size of participants through a survey distributed to public elementary school teachers in Missouri. The researcher chose teachers through a purposeful sample. Purposeful sampling allows the researcher to focus on specific participants to develop relevant research related to research questions within the study. Power analysis for linear regression analysis with five predictor(s) indicated that the minimum sample size to yield a statistical power of at least .8 with a small effect size ($f^2 = 0.15$) and an alpha of .05 was 92 using G*Power calculator (Laerd Statistics, 2015).

The participants in this study included kindergarten through sixth-grade elementary teachers in Missouri public schools. Missouri included 518 districts encompassing 1,228 elementary schools' kindergarten through sixth grade. Private schools were excluded from the study. Missouri principals that supervise kindergarten through sixth-grade teachers were asked to select two teachers they considered

collaborative and distribute the survey for this study for the 2021-2022 school year. The total sampling attempted was 2,456.

The principals' and teachers consent document to conduct research is located in Appendix A. Following this request, teachers agreed to be involved in this study. Demographics questions were included at the end of the survey. Demographic data included school size, gender, grade level, and years of experience. Including demographics allowed the researcher to analyze data further and describe the characteristics of the participants in this study.

Research Design

A quantitative, correlational research design was utilized for this study to seek the relationship between two or more variables. This type of nonexperimental, correlational research was appropriate because it sought to identify a certain magnitude or relationship between two or more variables and identified patterns in the data and matched the purpose of the study by examining the relationships between the researcher's variables: transformational leadership and collaboration (Creswell & Creswell, 2018; Laerd Statistics, 2015). Nonexperimental research was selected because it described a relationship between two or more variables without a control group.

The researcher utilized Pearson's *r* and multiple regression to describe the strength and direction of the transformational leadership behaviors (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition (Kent, 1999) and collaboration. The dependent variable, student collaboration, was defined as students working together to solve problems or answer questions, working effectively and respectfully in teams to

accomplish a common goal, and assuming shared responsibility for completing a task (Hixson et al., 2012). The independent variables— (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition— describe transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004). Measurement of the variables in this research is described below.

A correlational design was selected over causal-comparative research because the researcher was studying relationships between variables rather than establishing cause and effects differences included in causal comparative research. Pearson's *r* matched the research questions' goals in this study by determining if any significant relationships existed through correlational design. The researcher was not interested in casual relationships making this statistic appropriate. These statistics were selected compared to others because the Pearson's *r* analysis examined the relationship between the variables in this study. The multiple regression indicated predictor and criterion (Laerd Statistics, 2015).

Instrumentation

To examine the relationships between transformational leadership in elementary principals from the teacher's point of view and collaboration in elementary students from the teacher's point of view, the researcher combined surveys with email correspondence permission from Hixson et al.'s (2012) work on 21st-century teaching and learning with Kent and Blair (2009) work on transformational leadership. These surveys were selected as appropriate instruments by the researcher because they sought to address the research questions in this research.

The survey to measure collaboration for teachers was adapted A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey. This survey has been utilized to measure critical thinking, collaboration, communication, creativity, and innovation skills with previous research and was adapted by using the collaboration portion of this survey. Hixon et al. (2012) published that this survey has demonstrated excellent reliability with standard alpha greater than .90 and correlations greater than .58 when presented with the definition of the item being measured (Hixson et al., 2012). Factor analysis found that critical thinking, creativity, collaboration, and communication were less empirically distinct when the items were measured together. Cronbach's alpha was not published specifically for critical thinking, creativity, collaboration, and communication. For the purpose of this study, collaboration was only be measured with this tool. While distributing the collaboration portion of the survey, a definition of collaboration was provided, and a list of collaboration-related practices was administered using a Likert scale. Response choices for collaboration practices were 1 (*almost never)*, 2 (*a few times)*, 3 (*1-3 times per month),* 4 (*1-3 times per week*), and 5 (*almost daily*).

Likewise, in combination with the collaboration portion of A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012), LBI was also utilized in the researcher's survey. The LBI was developed to assess transformational leadership behaviors. The researcher selected this survey because of its development to collect data on the five leadership behaviors: (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition.

The LBI was completed by Kent et al. (2010). Subordinates report how often the leader exhibits behaviors described by Kent et al. 2001 as transformational. The LBI is a valid and reliable instrument resulting from factor analysis studies (Kent et al., 2001). Kent used various transformational leadership behavior descriptions of leaders to create the survey (Bass, 1985; Kent, 2005). The items were given to followers of leaders who used the factors to describe how often leaders displayed specific behaviors. The responses were factor analyzed to categorize collections of behaviors that connect to transformational leadership (Kent, 2005).

From this research, the five factors of transformational leadership originated. This part of the survey contains 29 items on a Likert scale. The time to complete this portion of the survey should encompassed 5 to 10 minutes. The Likert scale represented in this portion of the survey was 1-2 as *rarely*, 3-4 was *sometimes*, 5-6 was *often*, and 7-8 is *very often*. The higher the score, the more transformational the leader was perceived. Visualizing greatness represented six questions, care and recognition represented eight questions, empowering the we represented six questions, communicating for meaning represented five items, and managing oneself represented four items.

Research Question 1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?

For Research Question 1, there were six statements on the LBI (Kent & Blair, 2009) that had the subordinate rank their leader on a scale of 1 (*rarely*) to 8 (*very often*) to assess the amount of visualizing greatness. The questions included: I would describe my Leader as one who: (1) Has visions and dreams of what can be. (2) Has a desire to make

something happen. (3) Has a clear image of the future. (4) Expresses enthusiasm for their future. (5) Experiments, innovates and takes risks to find new or better ways. (6) Is willing to challenge the system.

Research Question 2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?

There were eight statements on the LBI (Kent & Blair, 2009) that had the subordinate rank their leader on a scale of 1 (*rarely*) to 8 (*very often*) to assess the amount of visualizing greatness. The questions included: I would describe my Leader as one who: (7) Lets people (empowers them to) do what they believe is right. (8) Gets people involved in decisions that affect. (9) Creates in others a sense of ownership in the organization. (10) Uses the word "we" constantly instead of "I." (11) Enlists the support and assistance of others who have a stake in the vision. (12) Involves others who must live with the results. (13) Appeals to others' values, interests, hopes, and dreams. (14) Strengthens people by giving power away, developing their competence, and assigning critical tasks to them.

Research Question 3. What is the relationship between elementary student collaboration in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view?

For Research Question 3, there were six statements on the LBI (Kent & Blair, 2009) that had the subordinate rank their leader on a scale of 1 (*rarely*) to 8 (*very often*) to assess the amount of communicating for meaning. The questions included: I would describe my Leader as one who: (15) Explains why they are doing what they are doing.

(16) Knows their audience when speaking to them. (17) Talks about the principles behind decisions that are made. (18) Communicates in ways that inspire and motivate others. (19) Takes the time needed to explain what they are thinking fully. (20) Sets the example by behaving in consistent ways with their stated values.

Research Question 4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view?

For Research Question 4, there were five statements on the LBI (Kent & Blair, 2009) that had the subordinate rank their leader on a scale of 1 (*rarely*) to 8 (*very often*) to assess the amount of managing one's self. The questions included: I would describe my Leader as one who: (21) Has a sense of self-determination and self-confidence. (22) Keeps their level of energy up high. (23) Believes anything can be done; has a "can do" attitude. (24) Is a model of persistence and perseverance. (25) Maintains focus and constancy of purpose.

Research Question 5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?

For Research Question 5, there were four statements on the LBI (Kent & Blair, 2009) that had the subordinate rank their leader on a scale of 1 (*rarely*) to 8 (*very often*) to assess the amount of care and recognition. The questions included: I would describe my Leader as one who: (26) Publicizes peoples' successes to all employees. (27) Celebrates team accomplishments regularly. (28) Genuinely cares about others. (29) Celebrates Victories.

The LBI (Kent & Blair, 2009) was a reliable and valid instrument for measuring transformational leadership behaviors. The LBI (Kent & Blair, 2009) was assessed to measure construct validity by comparing it to the Multi-Factor Leadership Questionnaire (MLQ). The MLQ is highly correlated with the factors within the LBI. Multiple studies have confirmed the reliability and validity of the MLQ. In addition, there is a positive significant relationship between the factors within the LBI and MLQ. This supports the construct validity of the LBI.

For Research Questions 1-5, collaboration was assessed using the collaboration portion from A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012). When provided with the definition of practices in the survey, items were highly correlated and contributed to extremely reliable overall measures for each skill with a standardized alpha greater than .90 (Hixson et al., 2012). Support for content validity is based on a review of existing frameworks from the International Innovative Teaching and Learning study by Shear, Novais, Means, Gallagher, and Langworthy (2010) and Partnership for 21st Century Skills, currently recognized as Battelle for Kids. Critical thinking, creativity, collaboration, and communication were noted to be less empirically distinct when measured together because some items on the survey were closely connected in responses. From this analysis, Hixson et al. (2012) recommended focusing on smaller sets of closely related measures to account for this reliability. For this reason, the researcher focused on collaboration as the only 21st-century skill measured within A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012).

Six statements in the survey asked teachers to rate how often they utilized collaboration. The teachers ranked their responses using a scale of 1-5. After each definition, the survey asks about frequency of between 5 to 8 practices pertaining to that skill. 1 '*Almost never*'; 2 '*a few times*'; 3 '*1-3 times per month*'; 4 '*1-3 times per week'*; and 5 '*Almost daily*.' The statements included: Here are some examples of practices that may help students learn collaboration skills. In your teaching of your target, how often have you asked students to do the following: (1) work in pairs or small groups to complete a task together? (2) work with other students to set goals and create plan for their team? (3) create joint products using contributions from each student? (4) present their group work to the group, instructor, or others? (5) work as a team to incorporate feedback on group tasks or products? (6) give feedback to peer or asses another student's work.

For Research Questions 1-5, the researcher utilized a Pearson correlation coefficient. Pearson's *r* measured the strength and direction of linear association between two variables (Laerd Statistics, 2015). A significance level of .05 was used to determine the strength of the relationship.

Research Question 6. What is the ability of (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012)?

For Research Question 6, the researcher utilized multiple regression. Researchers utilize multiple regression analysis because of the information from the associations between the independent and dependent variables (Urdan, 2017). Multiple regressions were tested to see if leadership factors Empowering the We, Communicating for Meaning, Managing One's Self, or Care and Recognition could predict collaboration more or less than other factors. The use of multiple regression analysis allowed for better recommendations through the correlation of collaboration and the predictive power of the five factors— (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition—included in the leadership behavior inventory.

Procedures

The researcher began by acquiring permission to utilize the LBI from Kent (2004) and the A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012). The Research Review Board reviewed the safety of human participants for approval within the procedures of Southwest Baptist University. This request attained permission to survey kindergarten through sixth-grade teachers in elementary schools in the state of Missouri.

After receiving approval from the Research Review Board, data collection began. The document to gain consent was distributed to Missouri elementary principals. After permission from principals was achieved, principals were asked to forward the initial invitation email and a survey link to two teachers. All teacher responses remained anonymous and confidential throughout the entire process.

The survey was administered in January of 2022 and began with the purpose of the study, voluntary participation, and confidentiality of information acquired. QuestionPro software was utilized and encompassed safeguards that allowed the study to be safe and confidential. Ethical considerations were made to ensure there was no risk for participants, including anonymity and confidentiality from whom research data were collected. An email was sent to all invited to participate explaining the purpose of the study, its significance, and the protocol for sharing the study results after completion. The data were compiled after the survey window closed. Finally, the data were analyzed and shared with the researcher's committee.

Data Analysis

The researcher collected data from the survey administered. The data for this study were collected utilizing QuestionPro software and then transferred to SPSS for statistical analysis. Demographic data included gender, grade level, and years of experience. Including demographic data allowed the researcher to analyze data further and describe the characteristics of the participants in this study. Before running the analysis, the researcher completed data cleaning by eliminating incomplete or missing data.

Multiple regression analysis was then utilized to analyze the independent and dependent variables' associations (Urdan, 2017). There were basic assumptions assessed to use multiple regression. First, data were reviewed for significant outliers and were data normally distributed. The data included the independence of errors and a linear relationship between the independent and dependent variables. The variances along the line of best fit, homoscedasticity, were reviewed to assess whether they remained similar

as the researcher moved along the line. In addition, multicollinearity, when two or more independent variables are highly correlated, was assessed (Laerd Statistics, 2015; Urdan, 2017).

Multiple regressions were tested to see if leadership factors could predict collaboration more or less than other factors. The use of multiple regression analysis allowed for better recommendations through the correlation of collaboration and the predictive power of the five factors (a)Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition, included in the leadership behavior inventory.

Analysis

The researcher utilized a Pearson correlation coefficient to investigate the relationships between transformational leadership in elementary principals from the teacher's point of view and collaboration in elementary students from the teacher's point of view. The research questions in this study included quantitative variables and a linear relationship. The researcher selected Pearson's *r* because it measured the strength between two variables in a linear manner (Laerd Statistics, 2015).

Basic assumptions were encompassed when the researcher utilized Pearson's *r*. The researcher checked to ensure the data contained two continuous variables, determined if the relationship between the variables was linear, and assessed for outliers (Laerd Statistics, 2015). The variables in this study were collaboration and visualizing greatness, collaboration and care and recognition, collaboration and empowering the we, collaboration and communicating for meaning, and collaboration and managing one's self. Each participant who took the survey had a pair of values, including a

transformational leadership behavior value, visualizing greatness, collaboration and care and recognition, collaboration and empowering the we, collaboration and communicating for meaning, and a collaboration value. Because outliers can skew results, data were also reviewed for any value that was 3.29 standard deviations from the mean (Laerd Statistics, 2015). Finally, the researcher ran a Shapiro-Wilk test to determine if the variables were normally distributed.

The researcher utilized the Pearson correlation analysis to obtain the value of the Pearson correlation coefficient. If the Pearson correlation coefficient was positive, the researcher concluded that there was a positive correlation between collaboration and (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition. The range of the Pearson correlation coefficient determined the strength of the correlation. The researcher utilized Cohen's (1988) guidelines for the strength of association. If coefficient values ranged from 0.1 to .3, there was a small correlation. If a coefficient ranged from 0.3 to .5, there was a moderate correlation. If the coefficient value was greater than .5, strong correlation was found (Laerd Statistics, 2015; Urdan, 2017).

The researcher then reported a coefficient of determination by assessing the amount of variance in one variable explained by the other variable. This was calculated as the square of the correlation coefficient (r^2). Finally, to establish whether Pearson's correlation coefficient was statistically significant, the researcher conducted a two-tailed significance value of the correlation coefficient. This helped the researcher accept or reject the null hypotheses (Laerd Statistics, 2015).

To further develop the value of the study, multiple regressions were tested to see if leadership factors, Empowering the We, Communicating for Meaning, Managing One's Self, or Care and Recognition could predict collaboration more or less than other factors. Multiple regression is used to predict whether the coefficients on independent variables are different from zero. This showed the independent variables affecting the dependent variables (Laerd Statistics, 2015). Multiple regressions allowed the researcher to determine the model's overall fit and contribution of each of the independent variables combined. The use of multiple regression analysis allowed for better recommendations through the correlation of collaboration and the predictive power of the five factors included in the leadership behavior inventory (Laerd Statistics, 2015; Urdan, 2017). The data were analyzed by the researcher using *t* statistics, *p v*alues, *F* values, and *R* squared.

Variables were evaluated for significance by what they added to the prediction of the dependent variable. The *F* test was used to assess whether the set of independent variables predicted the dependent variable. The goal of the *F* test was to test how fit the model was. The *p* value was utilized in combination with the *F* test when deciding if the collective variable's results were significant. If the researcher found the *p* value to be less than the significance level, the researcher's data concluded the independent variables in the study improved the fit. If the researchers found that none of the independent variables were significant, the *F* test was not statistically significant. The *p* value also told the researcher how confident the researcher could be with individual independent variables related to the dependent variables. For example, a low *p* value would reflect that (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition were related to collaboration.

A *t* test was outputted with multiple regression. The *t* value is the coefficient divided by the standard error. The standard error was an estimate of the standard deviation of the coefficient. The significance of each predictor to determine the degree of prediction for each independent variable was produced through *t* values (Laerd Statistics, 2015). This tested whether the coefficients were equal to zero and tested the null hypothesis. The researcher used SPSS to compare the *t* statistic with *R,* the multiple correlation coefficient*,* to determine the quality of prediction on the dependent variable (Laerd Statistics, 2015). *R* was the Pearson correlation coefficient between the scores predicted by the regression model and the actual values of the dependent variable. *R* measured the strength of the linear association between these two variables. This suggested a fit of the model with a value that could range from 0 to 1. A higher value displays a stronger linear association, with a value of 1 representing the perfect linear association. A multiple correlation coefficient of 0 displays no linear association between the dependent variable and the independent variables. The researcher utilized *R*-squared to assess the goodness of fit (Laerd Statistics, 2015; Urdan, 2017).

The multiple correlation coefficient of determination, *R*-squared, was be reported by the researcher. *R*-squared is the amount of change in the dependent variable explained by the independent variables *over the mean model* (Laerd Statistics, 2015). The researcher reported the independent variables, (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition into a regression model. A decimal and percentage reported the variability of collaboration compared to the mean model. The researcher did not use adjusted *R*-square with the number of independent variables because it made the data more conservative.

The statistical significance of the model containing all of the independent variables was reported as statistically significant if *p* was less than .05. If *p* was greater than .05, the researcher did not report a significant result (Laerd Statistics, 2015; Urdan, 2017).

Summary

There is a growing gap in the skills students need to be successful in the future. The current state of education elicits a quest to prepare students for future jobs and remains an immediate priority and challenge for educators across the nation (Weddle, 2020). Schools are challenged with the creating future ready students who are able be creative, think critically, communicate, and collaborate (Sundberg, 2017).

This chapter outlines the methodology for this study. The purpose of this correlational study was to test the theory of transformational leadership that related to collaboration for elementary teachers at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students being able to work together to solve problems or answer questions, work effectively and respectfully in teams to accomplish a common goal, and assume shared responsibility for completing a task (Hixson et al., 2012). The independent variables— (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition— described transformational leadership, defined as when a person engages with others leading to the followers increasing levels of motivation and morality (Kent, 2004). Multiple regression was then utilized to see if any behaviors could predict collaboration more or less than other behaviors. The researcher examined Missouri public elementary schools with grades K through 6 in any capacity.

In Chapter Four, the researcher will present the findings of the study. Research questions the null hypotheses will be analyzed. Chapter Five includes a summary, conclusions, and recommendations for future research.

CHAPTER FOUR

ANALYSIS OF THE DATA

Introduction

Lacking competencies needed to be successful in future careers, schools are tasked with creating change to better prepare students. The role of a principal has a significant impact in the school setting (Hattie, 2017). The leaders' approach to preparing students must change to reflect 21st-century opportunities and challenges (Warrick, 2018). Understanding how transformational leadership dispositions relate to learning and innovation skills in the school setting could set the stage for their school community and students to be successful in life. A principal who empowers teachers through transformational leadership creates a school climate that embraces innovation and reform (Sun & Henderson, 2017; Warrick, 2018). The purpose of this correlational study was to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary school principals' leadership traits at public elementary schools in Missouri. Data were downloaded from a survey given.

In this chapter, the researcher will give insight into the following research questions:

Research Questions

1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?

2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?
3. What is the relationship between elementary student collaboration in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view?
4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view?
5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?
6. What is the ability of (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012)?

Using quantitative analysis, each question and related hypothesis was examined. The researcher conducted a Pearson's correlation to assess the strengths of relationships. Multiple regression was then utilized for additional analysis to determine predictive measures between variables.

Null Hypotheses

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

$H_0$3: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view.

$H_0$4: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view.

$H_0$5: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view.

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

Data Analysis and Findings

Data for this study were collected by the researcher through a survey questionnaire administered through QuestionPro (see Appendix A). The survey was sent to kindergarten through sixth-grade principals in the state of Missouri. The researcher elected to not include private schools in this study. The kindergarten through sixth-grade principals were asked to send the survey to two teachers that were considered collaborative. Within the survey, participants were asked for their consent to take the survey, informed of confidentiality, and provided directions.

When the survey window was closed, all responses were downloaded from QuestionPro to Microsoft Excel. The data was then inputted to Statistical Package for the Social Sciences (SPSS). The researcher tested for assumptions and utilized a Pearson correlation coefficient to investigate the relationships between transformational leadership in elementary principals from the teacher's point of view and collaboration in elementary students from the teacher's point of view. The research questions in this study included quantitative variables and a linear relationship. The researcher selected Pearson's *r* because it measured the strength between two variables in a linear manner (Laerd Statistics, 2015).

Multiple regressions were tested to see if leadership factors— Empowering the We, Communicating for Meaning, Managing One's Self, or Care and Recognition could predict collaboration more or less than other factors. Multiple regressions allowed the researcher to determine the model's overall fit and contribution of each of the independent variables combined. The use of multiple regression analysis allowed for better recommendations through the correlation of collaboration and the predictive power

of the five factors included in the leadership behavior inventory (Laerd Statistics, 2015; Urdan, 2017).

Samples

The researcher selected schools through a purposeful sample. Purposeful sampling allows the researcher to focus on specific participants to develop relevant research related to research questions within the study. Only Missouri public schools with kindergarten through sixth-grade schools were sent the survey to use in the study. In this study, 1,495 principals were asked to participate in this. Schools that were identified as charter, parochial, or private were not used in the student. The minimum sample size needed was 92 responses. The survey received 252 responses. Data were cleaned upon the closure of the survey window. Only complete survey responses remained. The researcher eliminated 19 responses for this reason. The survey had 233 complete survey responses to analyze.

Demographics

As demonstrated in table 1, 21.9 percent of the participants in this study were 20 to 30 years old, 38.6% of the participants were 31 to 40 years old, 24.9% of the participants were 41-50 years old, 13.7% of the participants were 51-60 years old, .9% of the participants were 61-70 years old. As shown in table 2, 43.8% of the participants in this study had 1-10 years of experience, 40.3% had 11-20 years of experience, 14.6% had 21-30 years of experience, and 1.3% had 31-40 years of experience. As shown in table 3 12.9% of the participants were from urban districts, 44.6% were from suburban districts, and 42.5% of participants were from rural districts.

Table 1

Demographic Data Age of Participants

Age of Participants	Frequency	Percent
20-30	51	21.9
31-40	90	38.6
41-50	58	24.9
51-60	32	13.7
61-70	2	.9
Total	233	100.0

Table 2

Demographic Data Years of Experience

Years of Experience	Frequency	Percent
1-10	102	43.8
11-20	94	40.3
21-30	34	14.6
31-40	3	1.3
Total	233	100.0

Table 3

Demographic Data Urban, Suburban, or Rural

School Type	Frequency	Percent
Urban	30	12.9
Suburban	104	44.6
Rural	99	42.5
Total	233	100.0

Results

Research Question 1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

For research question 1, a Pearson's *r* correlation was used to determine if there were significant relationships. The data were divided into transformational leadership visualizing greatness and collaboration data sets. In the Pearson's *r*, both variables were continuous. After analyzing the scatterplot, the two variables had a linear relationship and there was no significance. Next, the data were run to determine if there was a statistically significant relationship between Visualizing Greatness in kindergarten through sixth-grade principals and student collaboration in the classroom.

The mean of Visualizing Greatness was $M = 38.7725$, $SD = 7.36457$, $N=233$. The mean Collaboration was $M = 19.4764$, $SD = 4.92623$, $N = 233$. This is shown in Table 4. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation indicated that there was a nonsignificant negative relationship between visualizing greatness in leaders and collaboration in elementary students, $r(231)=.035$, $p=.579$, as referred to in table 5. Visualizing Greatness statistically explained .12% of collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis.

Table 4

Descriptive Statistics of Visualizing Greatness and Collaboration

	Mean	Std. Deviation	*N*
Visualizing Greatness	38.7725	7.36457	233
Collaboration	19.4764	4.92623	233

Table 5

Pearson r Correlation Research Question 1

		Collaboration
Visualizing Greatness	Pearson Correlation	.035
	Sig. (2-tailed)	.597
	N	233

Research Question 2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

For research question 2, a Pearson's *r* correlation was used to determine if there were significant relationships. The data were divided into transformational leadership Empowering the We and collaboration data sets. The data were run to determine if there was a statistically significant relationship between Empowering the We in kindergarten through sixth-grade principals and student collaboration in the classroom.

Descriptive statistics were run as seen in Table 6. The mean of Visualizing Greatness was $M = 50.6524$, SD = 10.15629, N=233. The mean Collaboration was $M = 19.4764$, SD = 4.92623, $N = 233$. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation for Research Question 3 indicated that there was non-significant, very small positive relationship between Empowering the We in leaders and collaboration in elementary students, $r(231) = .021$, $p = .745$ as outlined in Table 7. Empowering the We statistically explained .05% of

collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis.

Table 6

Descriptive Statistics of Empowering the We and Collaboration

	Mean	Std. Deviation	*N*
Empower the We	50.6524	10.15629	233
Collaboration	19.4764	4.92623	233

Table 7

Pearson r Correlation Research Question 2

		Collaboration
Empowering the We	Pearson Correlation	.021
	Sig. (2-tailed)	.745
	N	233

Research Question 3. What is the relationship between elementary student collaboration in the classroom and **Communication for Meaning** in elementary principals from the teacher's point of view?

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Communication for Meaning** in elementary school principals from the teacher's point of view.

For Research Question 4, a Pearson's *r* correlation was used to determine if there were significant relationships. The data were divided into transformational leadership managing oneself and collaboration data sets. The data were run to determine if there was a statistically significant relationship between Communication for Meaning in kindergarten through sixth-grade principals and student collaboration in the classroom.

Descriptive statistics were run as seen in Table 10. The mean of Communication for Meaning was $M = 37.1073$, SD = 8.14902, $N = 233$. The mean Collaboration was $M =$

19.4764, SD = 4.92623, N = 233. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation, shown in Table 11, indicated that there was a nonsignificant, very small negative relationship between communication for meaning in leaders and collaboration in elementary students, $r(231)$= .0158, p = .811. Communication for Meaning statistically explained .02% of collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis.

Table 10

Descriptive Statistics of Communication for Meaning and Collaboration

	Mean	Std. Deviation	*N*
Communication for Meaning	37.1073	8.14902	233
Collaboration	19.4764	4.92623	233

Table 11

Pearson r Correlation Research Question 3

		Collaboration
Communication for Meaning	Pearson Correlation	-.016
	Sig. (2-tailed)	.811
	N	233

Research Question 4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary school principals from the teacher's point of view?

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary school principals from the teacher's point of view.

For Research Question 3, a Pearson's *r* correlation was used to determine if there were significant relationships. The data were divided into transformational leadership managing oneself and collaboration data sets. The data were run to determine if there was a statistically significant relationship between Managing Oneself in kindergarten through sixth-grade principals and student collaboration in the classroom.

Descriptive statistics were run as outlined in table 8. The mean of Managing Oneself was $M = 32.7124$, SD = 6.55012, $N = 233$. The mean Collaboration was $M = 19.4764$, SD = 4.92623, $N = 233$. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation, shown in table 9, indicated that there was a nonsignificant negative relationship between Managing Oneself in leaders and collaboration in elementary students, $r(231) = -.094$, $p = .153$. Managing Oneself statistically explained .88% of collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis.

Table 8

Descriptive Statistics of Managing Oneself and Collaboration

	Mean	Std. Deviation	*N*
Managing Oneself	32.7124	6.55012	233
Collaboration	19.4764	4.92623	233

Table 9

Pearson r Correlation Research Question 4

		Collaboration
Managing Oneself	Pearson Correlation	-.094
	Sig. (2-tailed)	.153
	N	233

Research Question 5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary school principals from the teacher's point of view.

For research question 5, a Pearson's *r* correlation was used to determine if there were significant relationships. The data were divided into transformational leadership care and recognition and collaboration data sets. The data were run to determine if there was a statistically significant relationship between Care and Recognition in kindergarten through sixth-grade principals and student collaboration in the classroom.

Descriptive statistics were analyzed outlined in table 12. The mean of Care and Recognition was $M = 25.6567$, SD = 11.91368, $N = 233$. The mean Collaboration was $M = 19.4764$, SD = 4.92623, $N = 233$ as shown in Table 12. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation, revealed in Table 13, indicated that there was a nonsignificant, very small negative relationship between Communication for Meaning in leaders and collaboration in elementary students, $r(231) = -.082$, $p = .210$. Care and Recognition statistically explained .68% of collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis.

Table 12

Descriptive Statistics of Care and Recognition and Collaboration

	Mean	Std. Deviation	*N*
Care and Recognition	25.6567	11.91368	233
Collaboration	19.4764	4.92623	233

Table 13

Pearson r Correlation Research Question 5

		Collaboration
Care and Recognition	Pearson Correlation	-.082
	Sig. (2-tailed)	.210
	N	233

Research Question 6. What is the ability of (a) **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012).

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

A multiple regression was run to predict collaboration from Visualizing Greatness, Empowering the We, Communication for Meaning, and Care and Recognition. The researcher began by testing for assumptions. The dependent variable,

collaboration, was continuous and two or more independent variables were involved in this study. The linear progression procedure was run in SPSS. Scatterplots were visually inspected to assess for linearity. When testing for multicollinearity, the VIF was greater than 10 with the variable Managing Oneself, 21.667, and Care and Recognition, 22.250. This suggested that two variables were highly correlated and created a problem to continue multiple regression analysis. Laerd Statistics (2015) suggested dropping an offending variable to continue the use of multiple regression. The researcher reran all analyses conducted after dropping Care and Recognition.

The researcher began by retesting for assumptions without Care and Recognition. The dependent variable, collaboration, was continuous and two or more independent variables were involved in this study. The linear progression procedure was run in SPSS. Scatterplots were visually inspected to assess for linearity. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.084. A score of 2 represents that there is no correlation between residuals or there is independence of errors. The scatterplots were visually inspected for linear relationship between the variables.

There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values (Laerd Statistics, 2015). When testing for multicollinearity, the variance inflation factor (VIF) was less than 10 as detailed in Table 14. Tolerance values were also greater than 0.1. This allowed the researcher to continue the analysis.

Outliers were reviewed. None were removed from the data. The data did not show any concern for studentized deleted residuals or leverage points greater than .02. The

researcher then assessed the data for normality. The data were observed as normally distributed and assumption was met.

Next, the researcher determined whether the multiple regression model was a good fit for the data. R^2 for the overall model was 3.3% with an adjust R^2 of 1.6%. Using the regression model, the researcher looked for significance in Visualizing Greatness, Empowering the We, Communication for Meaning, and Managing Oneself in predicting collaboration. The overall regression model was not statistically significant $F(4, 228) = 1.943$, p=.104, $R^{2\,=}$ .033. Taken as a set, the predictor variables accounted for 3.3% of the variance in collaboration. Regression coefficients and standard errors are located in Table 14. All four variables were not significant to the prediction, $p < .05$. Regression coefficients and standard errors can be found in Table 14.

Table 14

Regression Coefficients

Source	*B*	*SE B*	β	*t*	*p*	VIF	R^2	Adj R^2
Model							.033	.016
Constant	20.430	1.808		11.299	<.001			
Visualizing Greatness	.013	.076	.020	.176	.861	3.026		
Embowering the We	.094	.061	.195	1.540	.125	3.772		
Managing Oneself	-.246	.101	-.327	-.2.429	.016	4.281		
Communicate for Meaning	.051	.082	.080	.592	.554	4.321		

Note. Dependent Variable: Collaboration

Summary

The researcher delivered the analysis and findings of the study in Chapter Four. The statistical analysis and findings by the researcher exploring the relationship between

Visualizing Greatness, Empowering the We, Managing Oneself, Communication for Meaning in Missouri Principals and collaboration among elementary students were presented in this chapter. Survey results from 233 responses were collected and used to quantitively analyze data. The following hypotheses were tested:

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

$H_0$3: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view.

$H_0$4: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view.

$H_0$5: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view.

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict

collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

The researcher conducted a Pearson's correlation to assess the strengths of relationships. Multiple regression was then utilized for additional analysis to determine predictive measures between variables. Analysis of data revealed that statistical significance was not identified in the hypotheses. In the next chapter, the researcher will include recommendations and conclusions based on findings of the analyzed data in the area of future-ready skills.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Jobs of the future will look vastly different than the jobs of 2022. Job automation will increase productivity and push employers to hire employees to perform job duties that are beyond the work of a computer. Yet, an education crisis, schools leaving students unprepared for their future, is happening across the country (Darling-Hammond et al., 2019; Sundberg, 2017). The recent pandemic, COVID-19, has placed a bigger spotlight on a lack of readiness among many districts to facilitate 21st-century learning opportunities for students (P. Campbell, 2020). The approach to preparing students must change to reflect 21st-century opportunities and challenges (Sundberg, 2017). Thus, future skills, including creativity, critical thinking, communication, and collaboration, have become a relevant part of preparing students through education (Tharumaraj et al., 2018). The shift to future-ready competencies will solicit the need for innovation and effective leadership to facilitate change in schools (Griffin et al., 2017).

According to Marzano (2017), effective leadership is needed to impact change. Leaders have been challenged to raise achievement, close gaps, and continually redefine pedagogy to support students and teachers to develop skills that increase efficacy and competence (Chiong et al., 2017; Goren, 2018). In the future, leadership that teaches, elicits curiosity, values people, and pivots with change is wanted. A transformational leader is described as one who inspires, supports followers, and creates change by creating more leaders (Bass, 1985; Burns, 1978). Transformational leaders can promote

change in systems. Transformational leadership allows leaders and followers to engage in the cooperative purpose for improvement and motivation (Burns, 1978).

This study focused on the importance of the principal to lead the 21st-century learning endeavor and influence teachers to change teaching practice and prepare students for collaborative experiences in future careers. Understanding how transformational leadership dispositions relate to student collaboration will assist in how principals lead and how students learn to be future-ready in the 21st century and beyond. This research sought to examine the relationship between student collaboration and transformational leadership in kindergarten through sixth-grade principals in public schools in Missouri. In Chapter Five, the researcher included a summary of findings, results, professional implications, and recommendations for research in the future.

Research Questions

1. What is the relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view?
2. What is the relationship between elementary student collaboration in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view?
3. What is the relationship between elementary student collaboration in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view?

4. What is the relationship between elementary student collaboration in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view?
5. What is the relationship between elementary student collaboration in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view?
6. What is the ability of (a) **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict collaboration as measured in the Leadership Behavior Inventory (Kent et al., 2001) to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey (Hixson et al., 2012)?

Null Hypotheses

$H_0$1: There is no statistically significant relationship between elementary student collaboration in the classroom and **Visualizing Greatness** in elementary school principals from the teacher's point of view.

$H_0$2: There is no statistically significant relationship between collaboration in elementary students in the classroom and **Empowering the We** in elementary school principals from the teacher's point of view.

$H_0$3: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Communicating for Meaning** in elementary school principals from the teacher's point of view.

$H_0$4: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Managing Oneself** in elementary principals from the teacher's point of view.

$H_0$5: There is no statistically significant relationship between collaboration skills in elementary students in the classroom and **Care and Recognition** in elementary principals from the teacher's point of view.

$H_0$6: There is no predictive power of the five factors of the Leadership Behavior Inventory (a **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

Purpose Statement

This correlational research was conducted to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary school principals' leadership traits at public elementary schools in Missouri. The dependent variable, student collaboration, was defined as students working together to solve problems or answer questions, working effectively and respectfully in teams to accomplish a common goal, and assuming shared responsibility for completing a task (Hixson et al., 2012). The independent variables—(a) Visualizing Greatness, (b) Empowering the We, (c) Communicating for Meaning, (d) Managing One's Self, and (e) Care and Recognition— describe transformational leadership, defined as when a person engages with others, leading to the followers increasing levels of motivation and morality (Kent, 2004).

This research was necessary because schools are over two decades into the 21st century and still challenged with preparing students for future endeavors. Lacking competencies needed for future careers, students leave high school less prepared to succeed than any other generation. As the role of an elementary principal becomes more challenging, understanding how transformational leadership dispositions relate to learning and innovation skills in the school setting will set the stage for their school community and students to be successful in life. The leaders' approach to preparing students must change to reflect 21st-century opportunities and challenges (Warrick, 2018).

Summary of Methods

The researcher utilized a quantitative method to research for data collection and analysis. Approval from the Research and Review Board was approved in December of 2021. With this approval, the researcher then emailed the kindergarten through sixth-grade principals in public schools in the state of Missouri. The goal was for the principal to select two collaborative teachers to send the survey designed in QuestionPro. The researcher administered the survey in January of 2022, beginning with the purpose of the study, voluntary participation, and confidentiality of information acquired. The QuestionPro software encompassed safeguards that allowed the study to be safe and confidential. An email invited all to participate and explained the purpose of the study, its significance, and the protocol for sharing the study results after completion. Data were compiled after the survey window closed. Finally, the data were analyzed.

The researcher collected data from the survey administered. The data for this study were collected utilizing QuestionPro software and then transferred to SPSS for

statistical analysis. Demographic data included gender, grade level, and years of experience. Including demographic data allowed the researcher to analyze data further and describe the characteristics of the participants in this study. Before running the analysis, the researcher completed data cleaning by eliminating incomplete or missing data.

The survey received 252 responses. Data were cleaned upon the closure of the survey window. Only complete survey responses remained. The researcher eliminated 19 responses for this reason. The survey had 233 complete survey responses to analyze. For analysis, the researcher conducted Pearson's *r* statistical significance to determine whether to accept or reject the null hypotheses. Basis assumptions were tested and analysis continued. Multiple regressions were tested to see if leadership factors Empowering the We, Communicating for Meaning, Managing One's Self, or Care and Recognition could predict collaboration more or less than other factors.

Summary of Findings

For research questions 1-5, the researcher sought to answer "What is the relationship between elementary student collaboration in the classroom and (a) **Visualizing Greatness**, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** in elementary school principals from the teacher's point of view?" The results of the Pearson correlation indicated that there were nonsignificant relationships between Visualizing Greatness, Empowering the We, Communication for Meaning, Managing Oneself, and Care and Recognition in leaders and collaboration in elementary students. For research question 6, there was no predictive power of the five factors of the Leadership Behavior Inventory (a) **Visualizing**

Greatness, (b) **Empowering the We**, (c) **Communicating for Meaning**, (d) **Managing One's Self**, and (e) **Care and Recognition** to predict collaboration as measured using A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey.

Using the regression model, the researcher looked for significance in Visualizing Greatness, Empowering the We, Communication for Meaning, and Managing Oneself in predicting collaboration. The overall regression model was not statistically significant, $F(4, 228) = 1.943$, p=.104, R^2 = .033. Taken as a set, the predictor variables accounted for 3.3% of the variance in collaboration. Managing Oneself's p-value was less than .05 but R^2 was .033, illustrating that this model did not effectively predict collaboration based on the predictor variables. The researcher failed to reject the null hypotheses. Although there were no significant findings in this research, there were several interesting informational parts of this research to consider below.

Finding 1. The factor Empowering the We did not have a relationship with collaboration and did not significantly predict collaboration yet research supports Empowering the We promotes collaboration. The mean of Visualizing Greatness was M = 50.6524, SD = 10.15629, N=233. The mean Collaboration was M = 19.4764, SD = 4.92623, N = 233. The results of the Pearson correlation for Research Question 2 indicated that there was a nonsignificant, very small positive relationship between Empowering the We in leaders and collaboration in elementary students, $r(231) = .021$, p = .745. Empowering the We statistically explained .05% of collaboration in student classrooms. Further, through multiple regression, Empowering the We did not

significantly predict collaboration (B = .094, p = *.125).* For this reason, the researcher failed to reject the null hypotheses.

Finding 2. The factor Communication for Meaning in leaders can help create a shared vision of learning. Although the factor Communicating for Meaning did not have a significant relationship with collaboration, previous research shows effective communication is essential for school improvement. The mean of Communication for Meaning was M = 37.1073, SD = 8.14902, N = 233. The mean Collaboration was M = 19.4764, SD = 4.92623, N = 233. Initial analyses showed the relationship to be linear with both variables normally distributed, as assessed by the Shapiro-Wilk test ($p < .05$). There were no outliers. The results of the Pearson correlation, shown in Table 11, indicated that there was a nonsignificant, very small negative relationship between communication for meaning in leaders and collaboration in elementary students, $r(231) = .0158$, p = .811. Communication for Meaning statistically explained .02% of collaboration in student classrooms. For this reason, the researcher failed to reject the null hypothesis. Further, through multiple regression, Communication for Meaning did not significantly predict collaboration (B = .051, p = .554). For this reason, the researcher failed to reject the null hypotheses.

Finding 3. Teachers in urban districts reported the lowest levels of student collaboration in the classroom and the least amount of Empowering the We in their respective principal. Teachers in urban schools in this study reported lower levels of collaboration, 18.064, in classrooms and lower levels of Empowering the We, 49.207, reported in their building leaders. Data revealed that urban teachers reported their leader with lower amounts of empowerment; involvement in decision making; appealing to

others' values, interests, hopes, and dreams; strengthening people by giving power away; developing employee's competence; and creating a sense of ownership.

Finding 4. Teachers in this study did not utilize student collaboration daily. Teachers surveyed reported the following: 11.69% of the teachers surveyed reported working with other students to set goals and create a plan for success, 9.24% created joint products using contributions from each student; 12.15% presented their group work to the group, instructor, or others; 9.72% worked as a team to incorporate feedback on group tasks or products; 14.86 gave feedback to peers or assessed another student's work; and 56.40% worked in pairs or small groups to complete a task.

Finding 5. Collaboration among teachers and students may have been impacted by COVID-19. An unexpected and previously unidentified limitation of this study was that the survey was administered in the middle of a new COVID-19 surge, Omicron. The researcher received unsolicited communication from principals sharing the impact of COVID-19 on student collaboration.

Discussion

The results of this study indicated there were nonsignificant relationships between Visualizing Greatness, Empowering the We, Communication for Meaning, Managing Oneself, and Care and Recognition in leaders and collaboration in elementary students. The discussion section of this chapter will assess if literature corresponds, contradicts, or deepens interpretations of the findings. The findings are discussed below.

Finding 1 discussion. Although the researcher did not find a significant relationship between Empowering the We and collaboration, Empowering the We was the only factor that was directly linked to higher levels of collaboration in previous

research (Kent, 1999, 2004). Previous research has asserted that leadership is second only to classroom instruction among all school-related factors that contribute to student learning. Research further shows that when principals model desirable behaviors, it clarifies how teachers and, in turn, students should act in the classroom (Marzano et al., 2019). Administrators who focus on improving teacher practice may positively impact teacher performance (Zalaznick, 2018). Further, principals who build a collaborative culture and model quality teaching and learning accelerate teachers' capacity to improve instruction (McCarley et al., 2016).

Previous research has asserted that Empower the We provides leaders an avenue for effective leadership and fosters collaboration by cultivating a trusting environment and confident, self-efficacious relationships (Bloomberg & Pitchford, 2017; Eliophotou-Menon & Ioannouz, 2016; Kouzes et al., 2017). Further, leaders who exemplify Empowering the We inspire energy, commitment, and purpose to collaboratively overcome challenges. Empowering the We is outlined by behaviors aligned with creating a team: fostering collaboration, engaging team members to take ownership, empowerment, being involved in decision making, and identifying with value to the betterment of the collective whole (Kent, 1999, 2004). Collaboration, a critical 21st-century skill, needs to be emulated by teachers and their colleagues as a model for students. Cultivating a collaborative culture where staff feels safe to provide deep collaborative experiences for students should be the goal of leaders. Instructional programs that included collaborative structures and promoted a growth mindset for change best supported the everchanging needs of students (Caniëls et al., 2018).

Finding 2 discussion. Although the factor Communicating for Meaning did not have a significant relationship with collaboration, previous research shows effective communication is essential for school improvement. Preceding research asserted school leaders who communicated effectively and precisely created change associated with trusting relationships (Hollingworth et al, 2018). The factor Communicating for Meaning described effective interactions from a leader and the qualities utilized to achieve this practice (Kent, 1999, 2004; Kent et al., 2001). The way a leader communicates allows employees to gain deep understanding and value. A leader who communicates for meaning focuses on finding solutions, improving strategy, and achieving positive results to make changes.

A principal can create buy-in and vision of the school by communicating effectively. Leaders who exhibit communication for meaning devote time to sharing the message's importance and discussing ideas, beliefs, and values. In this study, 47.70% of the respondents reported that their building leader communicated very often in ways that inspired or motivated them. Leaders who focus on the why behind decision-making and communicate its values are perceived as more effective (Kent, 1999, 2004; Kent et al., 2001). Only 48.19% reported that the building leader talked about the principles or values behind decisions that are made. Further, 39.34% felt like their leader could explain what he or she was doing when making decisions in the building.

One way you become more credible and build trust is through effective communication. By inspiring trust, one's followers begin to develop trust with the leader. When trust is present in the school culture, a sense of commitment, influence, and empowerment is present (Covey, 2020; Kotter, 2017; Kouzes et al., 2017). Leaders that

utilize communication for meaning will create an environment where teaching, learning, celebrating, and proactivity are expected.

Finding 3 discussion. Teachers in urban districts reported the lowest levels of collaboration in the classroom and the least amount of Empowering the We in their respective principal. The principal's involvement is essential to the success of the collaborative culture and could assist in overcoming barriers, like COVID-19, schools are facing today. Previous research supports that when a principal prioritizes efforts to support teachers in collaboration, teachers overcome barriers and influence students in the classroom at more adequate levels (R.D. Goddard et al., 2017; Lee & Kuo, 2019).

Empowering the We is the only factor that explicitly states collaboration as a by-product of the factor. Collaboration allows brainstorming and dialogue to provide experiences, mental models, and guidance for the organization's vision (Bloomberg & Pitchford, 2017; Kotter, 2017; Marzano et al., 2019; Senge, 2006). Empowering the We is also closely aligned to the amount of trust a leader has in the employees they serve. School leaders "Empower the We" by believing they are stronger as a team and seeing the collaborative group as responsible for challenges the school may face (Bloomberg & Pitchford, 2017; Damanik & Aldridge, 2017). Leaders should (a) empower people to do what they believe is right, (b) get people involved in decisions that affect them, (c) create in others a sense of ownership in the organization, (d) use the word "we" constantly instead of I, (e) enlist the support and assistance of others who have a stake in the vision, (f) involve other who must live with the results, (g) appeal to others' values, interests, hopes, and dreams; and (h) strengthen people by giving power away, developing their competence, and assigning critical tasks to them (Kent, 2004).

Researchers have found that leaders who focus on the why behind decision-making and communicate its values are perceived as more effective (Kent, 1999, 2004; Kent et al., 2001). The researcher believes that administrators should (a) explain why they are doing what they are doing, (b) know the audience they are speaking to, (c) talk about the principles or values behind decisions that are made, (d) communicate in ways that inspire and motivate others, (e) take the time needed to explain fully what they are thinking, and (f) set the example by behaving in ways that are consistent with their values (Kent, 2004).

Previous research shows that trust is a crucial component for school collaboration and essential in high-achieving schools (Allen et al., 2015). Trust is also a key component of transformational leadership (Allen et al., 2015; Almarshad, 2017; Almonawer, 2021; Bastari et al., 2020). The amount of trust, openness, and communication within the organization depends on how collaborative the leader is perceived. Thus, collaborative leaders elicit trusting relationships. Quality relationships allow followers and leaders to overcome obstacles and foster group efficacy (Bayraktar & Jiménez, 2020; Li & Liu, 2020; Lyons, 2019). Innovation is encouraged and expected when trust is present within a school culture (Bloomberg & Pitchford, 2017; Cansoy, 2020; Darling-Hammond, 2017; Darling-Hammond et al., 2019). The collaborative conditions promoted within a school established by the principal are similar to conditions needed at the classroom level established by the teacher.

Finding 4 discussion. Teachers in this study did not report utilizing student collaboration daily. This is supported by previous research finding that models exist to address 21st-century learning competencies yet are only addressed in high-achieving

elementary schools to some degree and are mostly taught unintentionally and occasionally (Sundberg, 2017). Schools must purposely look for ways to prepare their students and teach these skills. Researchers have previously asserted student achievement improves when students work together (Fisher et al., 2020; Hattie & Anderman, 2020; Hattie & Clarke, 2018; Kagan, 2018). Further, working effectively and efficiently together is an important life skill that all students need to be future-ready and should be practiced daily (Cansoy, 2020; Novak, 2019).

Collaboration should be designed and practiced regularly. Battelle for Kids (2020) asserted collaboration should involve a variety of collaborative and noncollaborative experiences. Communication, conflict resolution, problem-solving, decision-making, and coordination should be subskills of collaboration (Hattie, 2017; Hollingworth et al., 2018; Lai et al., 2017). Collaboration should be focused on communication and require planning and feedback (Lai et al., 2017).

Finding 5 discussion. Collaboration among teachers and students may have been impacted by COVID-19. The researcher received communication via text and phone that stated collaboration was not utilized as much during COVID-19 and virtual learning. The researcher considered this information as an unintended limitation of the study.

During the survey window, the average number of new cases per day in Missouri rose to 11,445. Many districts switched to online learning within the 2-week window during which the survey was administered. In the research, only 49.41% of the participants felt like the building leader had a clear image for what the future could hold. Only 56% of teachers reported students working together to complete a task daily. Although this research was quantitative, the researcher received email, text, and phone

responses to the survey cautioning the researcher that the amount of student collaboration had declined in buildings with COVID-19 precautions and virtual learning.

In 2020, confident leaders with a strong vision to tackle disruption, like COVID-19, were described as transformational game changers (Stewart, 2020). Teaching and learning have also evolved with COVID. A recent survey showed a decrease of career-ready graduates after COVID (Battelle for Kids, 2020). The radical shift to being virtual ready and making up for learning losses has become the priority across districts. In becoming equipped for the 21st century and beyond, collaboration is a tool that can accelerate learning and provide students the avenue to communicate, be creative, and critically think. With fears of the virus spreading, many teachers were advised to socially distance, keeping students at a minimum of 6 feet apart. Teaching practices, like cooperative learning that promotes collaboration, were placed on pause, and students and teachers alike adapted to a new normal of social distancing and online learning.

Teachers aside, building leadership has also had to adjust priorities. School leaders have been challenged with closing learning gaps while balancing the needs of and meeting the social emotional needs of students who have been in and out of school. Making time for instructional leadership has been a goal for administrators for the last decade. Yet, COVID-19 has exacerbated the time spent on management-related items and lessened time spent on instructional improvement.

School climate and motivation have been heavily burdened by COVID-19 yet leaders who possess transformational leadership could be the answer. The level of concern by staff varied by staff but the noted anxiety was a significant predictor of teacher burnout and retention (Pressley & Learn, 2021). The lack of motivation has also

been associated with fear of student and staff health after the return to in person teaching during COVID-19. Further, a survey administered in 2021 predicted more than half of the United States educators considered a career change (Pressley & Learn, 2021). Stress impacts the ability of staff and students to learn and think effectively. A principal who empowers teachers through transformational leadership creates an improved school climate that embraces change (Sun & Henderson, 2017; Warrick, 2018). Research has shown that the application of transformational leadership, particularly Empowering the We, has shown to be effective when restructuring and improving school culture and morale.

Educational Implications

Overall, the results from this survey provided informational findings and were not based on the results of statistical analysis. The implications are intended for educational leaders, particularly superintendents, directors, principals, and assistant principals. The information gathered resulted in implications to be considered below.

Implication 1. School leaders should continue to emulate characteristics of Empowering the We to improve morale, motivation, and school visioning for future learning. Based on previous research connecting Empowering the We to collaboration, school leaders should continue to emulate characteristics of Empowering the We to improve communication, morale, motivation, and school vision. Leaders who Empower the We will carefully examine and execute the team's strengths to provide growth-provoking opportunities through solid collaborative efforts.

Implication 2. School leaders should improve communication to move a building forward with a shared vision of future-ready skills. Based on the finding Communication

for Meaning prior research, school leaders should improve their communication efforts to move a building towards a shared vision of future-ready skills. A clear vision of what future-ready skills encompass is needed. School leaders should prioritize future-ready learning as a necessary initiative to prepare students for the future.

Communicating for Meaning, a factor of transformational leadership, refers to the leader's communication style. In particular, the leader can make sense of and relate ideas to others. The researcher believes that time should be devoted to sharing the importance and vision of future-ready skills such as communication, creativity, critical thinking, and collaboration. Ideas, beliefs, and values of the dispositions should be explicitly discussed to help educators understand the why.

Implication 3. Professional learning is needed in the area of student collaboration. Researchers have asserted to move forward, leaders must nurture and understand the vision of 21st-century learning (Battelle for Kids, 2019; Hirsh-Pasek et al., 2020). Modeling effective strategies is beneficial when aiming for reform in the classroom (Haug & Mork, 2021). The leader's approach to preparing students must change to reflect 21st-century opportunities and challenges (Novak, 2019). Companies continue to seek employees with communication, creativity, critical thinking, and collaboration as jobs continue to change and become more automated. Further, COVID-19 has illustrated the inequities of learning opportunities for students in the same state. The researcher believes that professional learning, the deliberate design of learning that is tailored to meet the needs of the learner, is needed in the area of collaboration. Principals and teachers, alike, need to provide staff with relevant and equitable learning opportunities that are tailored to meet the needs of students who need future-ready skills.

The survey utilized by the researcher in this study only covered a small aspect of student collaboration. Battelle for Kids further (2020) described effective collaboration in the 21st century in five areas. The researcher proposes professional learning in the areas of (a) leadership and initiative, (b) cooperation, (c) flexibility, (d) responsibility and productivity, and (e) responsiveness and self-regulation.

The first two areas proposed for professional learning were leadership and initiative. To exemplify this focus area of collaboration, the student will understand and perform their role on the team. Each member of the will know the team's goal and divide the work accordingly, regularly assess progress, and determine how to best make the next step. The group members will work to exemplify the mission and vision of the project (Battelle for Kids, 2020). Cooperation is the second area needed for professional learning among staff and students. Verbal and nonverbal cues will be explicitly discussed. Consensus should be practiced within the team and compromises be made within the group by being cognizant of each member of the group (Battelle for Kids, 2020).

The next focus areas of collaboration needed for professional learning were flexibility, responsibility and collaboration, and self-regulation. Flexibility would allow for the group members to share diverse perspectives, perhaps one of the most pertinent skills needed today in our nation. This learning would be focused on being solution oriented and situationally aware of other group members' thoughts, principles, and feelings. Each team member is respected and valued (Battelle for Kids, 2020). The fourth area of focus within collaboration was responsibility and productivity. The group members possess positive attitudes and are excited to encourage the group. Work that is submitted is highly ethical and of high quality. Project management allows project

monitoring and progress towards collaborative objectives (Battelle for Kids, 2020). The fifth area of focus was responsiveness and self-regulation. Feedback is wanted and effectively received or delivered. The group members are reflective in areas of weakness and strengths. The group members can describe the learning from collaboration (Battelle for Kids, 2020). The final focus area of collaboration is the use of technological tools to assist with collaboration. Tools are appropriately identified and increase productivity to assist with collaboration (Battelle for Kids, 2020). These competencies of collaboration have commonalities with the dispositions of Kent's (2004) transformational leadership.

Researchers agree that collaboration is how schools and teachers get better (Bloomberg & Pitchford, 2017; Darling-Hammond et al., 2018). When teachers work together, research supports that student outcomes can improve (Darling-Hammond et al., 2018). For this reason, professional learning around collaboration must ensue. The researcher suggests teachers must be provided time for interactive professional learning opportunities with peers and masters of 21st-century learning.

Implication 4. Principals must commit to less managerial tasks and more meaningful feedback to teachers. Principals are understood to be critical actors in improving teaching and learning. Because COVID-19 has intensified the time spent on management-related items and lessened time spent on instructional improvement, the researcher suggests principals commit to less managerial tasks and more meaningful feedback to teachers. Teachers who reported higher levels of collaboration in this research perceived their principal as empowering and trusting. Principals must work beside teachers, providing regular feedback, to cultivate a culture of innovation. Teachers

must feel safe to take risks and open to regular feedback if transformational change is to develop within a district.

The researcher believes that collaboration among the principal and staff is an essential part of restructuring learning. What school leaders intentionally model creates learning environments where these dispositions for the future are expected in the classroom (McCarley et al., 2016). As leadership effectiveness is related to the behaviors presented by the leader, it is essential to examine how school principals can model and provide feedback for teachers (Eliophotou-Menon & Ioannouz, 2016).

Recommendations for Future Research

Based on the limitations and findings of this study, the researcher recommends additional research to expand understanding of how leadership impacts future-ready skills.

1. Literature suggests that leadership styles influence how a principal can successfully lead a school. The current study explored transformational leadership in principals and student collaboration in schools. It is recommended that this study be replicated with 21st-century exemplary school principals and teachers as identified by Battelle for Kids.
2. Based on evidence that leadership styles influence how a principal can successfully lead a school, it is recommended that case studies be conducted with schools identified as 21st-century exemplary schools by Battelle for Kids.
3. Research shows that developing communication, creativity, critical thinking, and collaboration skills is essential for students to develop to be prepared for future career aspirations. To further develop this research, it is recommended to examine

how students' experiences with communication, creativity, critical thinking, and collaboration impacted their career preparedness.

4. Based on prior evidence that communication, creativity, critical thinking, and collaboration skills are strong predictors of success in a student's future, it is recommended to further research the disparity of these skills being taught in urban, suburban, and rural settings.
5. Based on prior evidence that communication, creativity, critical thinking, and collaboration skills are strong predictors of success in a student's future, it is recommended to further research the impact of COVID and the exposure of communication, creativity, critical thinking, and collaboration skills in schools.

Summary

Twenty-First Century Learning is no longer as relevant as we are 22 years into the century. The idea of creating future-ready learners is not going away. Jobs of the future will include learning and acquiring new skills as part of the transformation of the job market. Thus, future skills have become a relevant part of preparing students through education (Tharumaraj et al.., 2018). Employees are seeking applicants that have a diverse skillset and can communicate, be creative, critically think, and collaborate at deep levels. The educational crisis of preparing students for their individual future is still a relevant issue educators face (Darling-Hammond et al., 2018; Podolsky et al., 2019; Sundberg, 2017). Understanding how to equitably prepare students for this venture should be the united goal of schools across the nation.

This correlational research was conducted to test the theory of transformational leadership by relating student collaboration and teachers' perceptions of elementary

school principals' leadership traits at public elementary schools in Missouri. The majority of previous research was focused on transformational leadership and the leader's ability to lead. There was no research connecting transformational leadership to communication, creativity, critical thinking, and collaboration. The gap in research may provide opportunities for school leaders to improve in future-ready endeavors and improve strategy in this endeavor. The findings of this study were not significant, yet informational. The researcher failed to reject the null hypotheses. A summary of findings the reader may find interesting included the following.

1. School leaders should continue to emulate characteristics of Empowering the We to improve morale, motivation, and school visioning for future learning.
2. School leaders should improve communication to move a building forward with a shared vision of future-ready skills.
3. Teachers in urban districts reported the lowest levels of collaboration in the classroom and the least amount of Empowering the We in their respective principal.
4. Teachers in this study did not reporting utilizing student collaboration daily.
5. Collaboration among teachers and students may have been impacted by COVID-1

Educational implications were intended for educational leaders, particularly superintendents, directors, principals, and assistant principals.

1. School leaders should continue to emulate characteristics of Empowering the We to improve morale, motivation, and school visioning for future learning.
2. School leaders should improve communication to move a building forward with a shared vision of future-ready skills.

3. Professional learning is needed in the area of student collaboration.
4. Principals must commit to less managerial tasks and more meaningful feedback to teachers.

The researcher believes that these informational findings support research that the approach to preparing students must change to reflect 21st-century opportunities and challenges (Sundberg, 2017). Many schools need reform to better prepare students for their future (Sundberg, 2017). COVID-19 has emphasized the desperate need for equitable change. Leaders must think innovatively and take deliberate action to provide equitable and future-ready instruction for all students (Brandt & Thompson, 2020). It is the researcher's hope that this study evokes reflection on current practices to provide better opportunities for future learners. For the United States to continue to be a competitive nation, it is essential that we invest and challenge the status quo of 20th-century learning.

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Appendix A

Teacher Email Consent

My name is Holly Schrage and I am a doctoral student at Southwest Baptist University. As part of my research, I am asking for approximately 10 minutes of time to complete an anonymous survey regarding transformational leadership and collaboration among elementary students.

Participation in this study is completely voluntary and anonymous. There are no foreseeable risks associated with this project and this research study has been reviewed by the Southwest Baptist University Research Review Board. However, if your teachers feel uncomfortable answering any questions, they may withdraw from the survey at any point. Thank you very much for your support and understanding of this doctoral endeavor.

Following the conclusion of my research, the completed study will be available for reading via the dissertation abstract or through the SBU Library. I will be happy to field any inquiries you may have and can be contacted at HollySchrage@WillardSchools.net. Furthermore, we have contracted with QuestionPro, an independent research firm, to field anonymous survey responses. Please click on this link to view and start the survey:

Thank you for your time and confirmation of consent.

Appendix B

Informed Consent to Participate

THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP IN ELEMENTARY SCHOOL PRINCIPALS AND COLLABORATION AMONGST ELEMENTARY SCHOOL STUDENTS IN THE CLASSROOM

You are asked to participate in a research study conducted by **Holly Schrage** enrolled in the Educational Doctoral program at Southwest Baptist University. You are invited to participate in this research project because you are currently an elementary teacher. The purpose of this correlational study was to test the theory of transformational leadership that related to collaboration for elementary teachers at public elementary schools in Missouri.

Your participation in this research study is voluntary. You may choose not to participate or skip any question that you are not comfortable in answering. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves completing an online survey that will take approximately **8-10 minutes**. As this is an online survey, participants can complete the survey in the location of his/her choice. Your responses will be confidential and we do not collect identifying information such as your name, email address, or IP address.

The questions presented in the survey are focused on leadership and collaboration. The questions are designed to solicit information about leadership and collaboration in your classroom. Data gathered will be completely confidential. All data will be stored in a password-protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only.

If you have any questions or concerns about the research study, please contact Holly Schrage at HollySchrage@WillardSchools.net.
The Research Review Board (RRB) for Southwest Baptist University approved this study on April 2, 2019 and you may contact the RRB for questions or concerns regarding this study at rrb@sbuniv.edu.

Clicking on the "I agree" button below indicates that:

- You have read the above information.
- You have voluntarily agreed to participate.
- You are at least 18 years of age.

- If you do not wish to participate in the research study, please decline participation by clicking on the “exit survey” button at the top, right-hand corner of this page.

Appendix C

Survey Instrument

CONSENT TO PARTIPATE IN RESEARCH THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP IN ELEMENTARY SCHOOL PRINCIPALS AND COLLABORATION AMONGST ELEMENTARY SCHOOL STUDENTS IN THE CLASSROOM

You are asked to participate in a research study conducted by Holly Schrage enrolled in the Doctoral program at Southwest Baptist University. You are invited to participate in this research project because you are currently a teacher. The purpose of this research correlational study is to test the theory of transformational leadership that relates to collaboration for elementary teachers at public elementary schools in Missouri.

Your participation in this research study is voluntary. You may choose not to participate or skip any question that you are not comfortable in answering. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves completing an online survey that will take approximately 8-10 minutes. As this is an online survey, participants can complete the survey in the location of his/her choice. Your responses will be confidential and we do not collect identifying information such as your name, email address, or IP address.

The questions presented in the survey are focused on the relationship between transformational leadership and student collaboration. The questions are designed to solicit information about your principal and class in the 2021-2022 school year.

Data gathered will be completely confidential. All data stored in a password-protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only. If you have any questions or concerns about the research study, please contact Holly Schrage at HollySchrage@WillardSchools.net. The Research Review Board (RRB) for Southwest Baptist University approved this study and you may contact the RRB for questions or concerns regarding this study at rrb@sbuniv.edu.

Clicking on the "I agree" button below indicates that:

- You have read the above information.
- You have voluntarily agreed to participate.
- You are at least 18 years of age.

If you do not wish to participate in the research study, please decline participation by clicking on the "exit survey" button at the top, right-hand corner of this page.

To complete the questionnaire, as teacher, think of your leader (elementary principal) and his/her behavior in his/her role as a leader. Then, using each of the items below, describe that behavior by selecting the choice that, in your experience, most nearly describes how often your leadership successfully displays that particular behavior. For example, suppose the item is "Uses examples that others can relate to." If you think the Leader does this often, you would mark a "5" or a "6'. You would mark a 5 if you feel it that the situation is closer to "sometimes" than to "very often." You would mark a "6" if you think that the situation is closer to "very often."

This questionnaire asks you to describe your principal's leadership and management style.

I would describe my Leader as one who: Rarely (1-2) Sometimes (3-4) Often (5-6) Very Often (7-8)

1. Has visions and dreams of what can be.	1------2------3------4------5------6------7------8
2. Has a desire to make something happen.	1------2------3------4------5------6------7------8
3. Has a clear image of the future.	1------2------3------4------5------6------7------8

4. Has a desire to make something happen.	1------2------3------4------5------6------7------8
5.Has a clear image of the future	1------2------3------4------5------6------7------8
6.Expresses enthusiasm for his/her future.	1------2------3------4------5------6------7------8
7. Is willing to challenge the system.	1------2------3------4------5------6------7------8

Viz. Score_____

1.Let's people (empowers them to) do what they believe is right	1------2------3------4------5------6------7------8
2.Gets people in decisions that affect them	1------2------3------4------5------6------7------8
3. Has a clear image of the future.	1------2------3------4------5------6------7------8
4. Has a desire to make something happen.	1------2------3------4------5------6------7------8
5.Has a clear image of the future	1------2------3------4------5------6------7------8
6.Expresses enthusiasm for his/her future.	1------2------3------4------5------6------7------8
7. Is willing to challenge the system.	1------2------3------4------5------6------7------8
8.Gets people involved in decisions that affect them.	1------2------3------4------5------6------7------8
9.Creates in others a sense of ownership in the organization.	1------2------3------4------5------6------7------8
10.Uses the word "we" constantly instead of "I."	1------2------3------4------5------6------7------8
11.Enlists the support and assistance of others who have a stake in the vision.	1------2------3------4------5------6------7------8
12.Involves others who must live with the results.	1------2------3------4------5------6------7------8
13.Appeals to others' values, interests, hopes, and dreams.	1------2------3------4------5------6------7------8
14.Strengthens people by giving power away, developing their competence, and assigning critical tasks to them.	1------2------3------4------5------6------7------8

EmWe Score _____

1.Explains why she/he is doing what she/he is doing	1------2------3------4------5------6------7------8
2.Knows his/her audience when speaking to them	1------2------3------4------5------6------7------8
3.Talks about the principles or values behind decisions that are made	1------2------3------4------5------6------7------8
4.Communicates in ways that inspire and motivate others	1------2------3------4------5------6------7------8
5.Takes the time needed to explain fully what he/she is thinking	1------2------3------4------5------6------7------8
6.Sets the example by behaving in ways that are consistent with his/her stated values	1------2------3------4------5------6------7------8

CommMean _____

1.Has a sense of self-determination and self-confidence	1------2------3------4------5------6------7------8
2.Keeps his/her own level of energy up high	1------2------3------4------5------6------7------8
3.Believes anything can be done; has a "can do" attitude	1------2------3------4------5------6------7------8
4.Is a model of persistence and perseverance	1------2------3------4------5------6------7------8
5.Maintains focus and constancy of purpose	1------2------3------4------5------6------7------8

MOS _____

1.Publicizes peoples' successes to all employees	1------2------3------4------5------6------7------8
2.Celebrates team accomplishments regularly.	1------2------3------4------5------6------7------8
3.Genuinely cares about others	1------2------3------4------5------6------7------8
4.Celebrates victories.	1------2------3------4------5------6------7------8

CarNRec _____

To complete this portion of the questionnaire, as teacher, reflect on your teaching of your current class in the 2021-2022 school year. Then, using each of the items below, select that behavior by selecting the choice that, in your experience, most nearly describes how often you utilize the identified collaboration skill.

COLLABORATION SKILLS refer to students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal, and to assume shared responsibility for completing a task.

COLLABORATION SKILLS. In your teaching of your TARGET GROUP, how often have you asked students to do the following:

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Work in pairs or small groups to complete a task together?	❑	❑	❑	❑	❑
b. Work with other students to set goals and create a plan for their team?	❑	❑	❑	❑	❑
c. Create joint products using contributions from each student?	❑	❑	❑	❑	❑
d. Present their group work to the group, instructor, or others?	❑	❑	❑	❑	❑
e. Work as a team to incorporate feedback on group tasks or products?	❑	❑	❑	❑	❑
f. Give feedback to peers or assess other students' work?	❑	❑	❑	❑	❑

What is your age? 20-30; 31-40; 41-50; 51-60; 61-70

How many years have you been in education? 1-10: 11-20: 21-30; 31-40; 41-50

Do you teach in an urban, suburban, or rural school? 1-2-3

Please realize how thankful I am for your participation in my research. Your responses will remain confidential. Please check the box if you would like a follow up of the results of this research.