A CAUSAL COMPARATIVE STUDY OF FOURTH GRADE ACHIEVEMENT AND DISTRIBUTION OF LEADERSHIP TO STUDENTS

BRIGETTE GOLMEN

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The undersigned, approved by the Department of Graduate Studies in Education, have examined a dissertation entitled:

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Presented by, Brigette Golmen, a candidate for the degree of Doctor of Education and hereby certify that in their opinion it is worthy of acceptance.

Dr. Pam Hedgpeth, Advisor/Chair

Graduate Studies in Education, Southwest Baptist University

Dr. Benny Fong, Committee Member

Assistant Professor of Graduate Education and Statistics, Southwest Baptist University

Dr. Jennifer Chastain, Committee Member

Principal, John Thomas School of Discovery, Nixa Public Schools

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By

Brigette Golmen, B.S., M.S., Ed.S.

Dr. Pam Hedgpeth, Dissertation Advisor

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ABSTRACT

In today's era of federal mandates for increased standardized testing, consistently higher levels of student achievement, and demands for schools to prepare students for the needs of a 21st century society, schools are feeling the pressure to meet the vast needs of all students. Not only are schools asked to meet the academic needs of their students, they are also being challenged to meet social and emotional needs while preparing students for the varied needs of the 21st Century. Efforts toward continuous improvement to meet the increasing standards and expectations are a task too large to be undertaken by the school leader, independent of the support and engagement of staff and students.

This research is based on a theoretical framework including research into the work of James MacGregor Burns, Stephen Covey, Richard Elmore, and John Bransford. The literature review further included work by many important contributors to the field of education including John Hattie, Robert Marzano, Richard DuFour, John Kotter, and Michael Fullan who credit transformational and distributed leadership as leadership characteristics which facilitate a collaborative culture leading to continuous improvement. Many researchers further indicate distribution of leadership to students can lead to increases in student academic achievement. This research examines the difference in academic achievement as measured by the Missouri Assessment Program (MAP) between schools that implement a system of leadership distributed to students, specifically through implementation of Leader in Me and schools that do not implement a program of leadership distributed to students. A statistical analysis of fourth grade Mathematics and English Language Arts percentages from the 2017-2018 school year was completed using an independent samples t-test.

INTRODUCTION

Introduction

Over the course of the last 60 years, school reform has been at the forefront of public education. Beginning with the inclusion of minority students and the push towards equality in education for all regardless of gender or ethnicity, public schools in America began to search for reform and accountability. The elementary and secondary school act of 1965, later known as the elementary and secondary education act (ESEA), introduced laws calling for educational reform at all levels, and brought about greater levels of accountability (Iorio & Yeager, 2011). This publication again ignited the call for educational reform in the United States.

In 2002, President George W. Bush promoted and signed into law significant revisions to the Elementary and Secondary Education Act through No Child Left Behind. This law created significant increases in the Federal Government's role in holding schools accountable for the academic achievement of all students, again creating sweeping reform (Iorio & Yeager, 2011). Most recently, the Every Student Succeeds Act continued the call for improvements to the public education system, this time increasing the focus on preparation for college and career readiness.

In addition to federal mandates, the needs of the 21st century learner have also become an important focus of education. Skills such as digital literacy and citizenship, collaboration, communication, critical thinking, creativity, and cultural awareness have become central components of a well-rounded education (Tharamuraj, Krishnan, & Perumal, 2018). In today's era of federal mandates for increased standardized testing, consistently higher levels of student achievement, and demands for schools to prepare students for the needs of a 21st century society, schools are feeling the pressure to meet the vast needs of all students. Not only are schools

asked to meet the academic needs of their students, they are also being challenged to meet social and emotional needs while preparing students for the varied needs of the 21st Century.

Character education is a common catch phrase used to identify ways schools are meeting the social-emotional needs of students. While there are many different views of what character education truly is, major figures in the field of character education and social emotional learning agree the development of moral and psychological characteristics that provide ethical direction and social effectiveness, and prosocial development are the focus of character education (Elias, Parker, Kash, & Dunkebelau, 2007; Berkowitz, Bier, & McCauley, 2016; McGrath, 2018). Despite the need for character and social emotional education as a way to meet the need for development of critical thinking, collaboration, creativity and communication, character education with a focus on providing students with social and emotional mastery lost its steam and students are not learning the skills necessary to compete in today's workforce (Covey, 2008). Jim Collins (2001) reported truly successful companies place greater emphasis on aspects of character such as work ethic, integrity, perseverance, and overall values than they do on educational background and achievement. Daniel Goleman's research on Emotional Intelligence in the workplace indicated similar success traits of personal competence including adaptability, initiative, and optimism as well as social competencies like empathy, teamwork, collaboration, conflict management, and the ability to build bonds with others (Goleman, 2005).

In the midst of the call for educational reform and the call to meet the needs necessary to succeed in the 21st century workforce, a magnet school in Raleigh, North Carolina, led by principal Muriel Summers found itself short of the individuality needed to attract students to the area and keep the school open. Challenged by her superintendent to come up with a new theme for her school, Ms. Summers and her staff spoke to parents and community leaders about their

desires for a school and to teachers about what they wanted for their own children. What Summers discovered was in line with the research of Goleman and Collins. Business leaders wanted graduates with strong analytical and problem-solving skills, leadership abilities, creativity, integrity, interpersonal skills, self-motivation, and strong work ethic (Covey, 2008). Ms. Summers believed these needs, consistent with that of a 21st century learner, could be addressed through Covey's 7 Habits of Highly Effective People. Ms. Summers began implementation of the 7 Habits in her school, hopeful the life skills addressed by the 7 Habits of Highly Effective People would be the thing to meet the needs as indicated by stakeholders and would provide the individuality and learning skills that would set her school apart (Covey, 2008).

When bringing the 7 Habits of Highly Effective People to an elementary school, Summers understood the importance of shared vision and team learning. Through her processes of transformational leadership, she involved stakeholders throughout her school community in the teaching of the 7 Habits, development of a shared vision, implementation of leadership roles, and collective ownership of student achievement. It became imperative that the staff at A.B. Combs embraced the 7 Habits in their own thoughts and actions, allowing leadership to be distributed to staff and then to students (Covey, 2008). Programs and practices like those implemented by Ms. Summers that distribute leadership to students have increased in prevalence as a way to positively impact student achievement while developing students both socially and emotionally and emphasizing 21st Century skills. Little research has been conducted to determine the relationship between academic achievement and distribution of leadership to students, therefore, the purpose of this study is to determine the relationship between leadership distributed to students and academic achievement.

Problem Statement

In an ever-changing society, demands for 21st century skills of collaboration and teamwork, creativity and imagination, critical thinking and problem solving have taken priority as the preparation our students need to ready them to thrive in today's world (Nesloney & Welcome, 2016). Schools are challenged with the task of how to accomplish development of these skills while still preparing students for standardized testing emphasized in states across the nation. In order to rise to this challenge, programs such as Leader in Me which distributes leadership to students have been implemented in schools nationwide with claims that the study of leadership and the 7 Habits helps prepare our students to reach high levels of academic achievement, social emotional well-being, and to be successful outside of the classroom (Franklin Covey Education, 2019). While many advocates for The Leader in Me share their success stories, there is little quantitative research to specifically align implementation of Leader in Me to increases in achievement.

Purpose of the Study

The purpose of this causal comparative study was to test the theory of distribution of leadership to students to find the differences between schools who do not implement a system of leadership distributed to students and schools who do implement a system of leadership distributed to students to percentages of proficient and advanced achievement on the Missouri Assessment Program (MAP) test. The researcher controlled for the assessment method by utilizing the MAP test as the assessment tool and only including public elementary schools who participate in the MAP for 4th grade students in the state of Missouri. The independent variable is controlled for distribution of leadership to students controlled through implementation of The Leader in Me, a system of distributed leadership outlined by Stephen Covey in partnership with

the Franklin Covey Education Institute (Covey, 2008; Franklin Covey, n.d.). The dependent variable is the 4th grade MAP test which utilizes standardized testing in the areas of mathematics and English language arts (ELA) to determine proficiency levels aligned to scale scores for individual students resulting in schools receiving an overall percentage of students who have achieved proficiency levels of below basic, basic, proficient, and advanced (DESE, 2019). This study focused on proficient and advanced percentages for public elementary schools in the state of Missouri as reported by the Missouri Department of Elementary and Secondary Education (DESE).

To answer the call for school reform, school leaders rely on strong implementation of leadership practices that positively impact teaching and learning, thereby leading to high levels of student achievement. The theoretical framework of this research begins with a focus on transformational leadership whereby leaders utilize shared vision, innovative problem solving, intentional change, shared leadership, and high levels of accountability (Burns, 1978; Bass, 1985; Leithwood, 1994; Bass & Avolio, 1994; Bolman & Deal, 2008). Implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000; DuFour, R., DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). Further, the development of social emotional skills, character, collaboration, critical thinking, and creativity are also at the forefront of the drive for academic excellence (Griffith & Slade, 2018). Distributed leadership allows for comprehensive improvement as a result of intentional and systematic action shared among individuals with a wide range of expertise (Elmore, 2000). Many researchers identify distributed leadership characteristics of self-efficacy, high expectations, and metacognition as frameworks for

increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016). Stephen Covey aligned the development of these characteristics in students through implementation of The Leader in Me (2008). This study seeks to analyze student academic achievement after implementation of leadership distributed to students with The Leader in Me process.

Research Questions

The following research questions guided this study:

1. What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
2. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
3. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
4. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of

programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

5. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
6. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
7. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
8. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypotheses

In an effort to answer the aforementioned research questions, the following hypotheses were investigated:

$H_0$1: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of

programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year of** implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Significance of Study

This study looked at the difference between achievement scores in math and ELA for schools who distribute leadership to students and achievement scores in math and ELA for schools who do not distribute leadership to students. This study related to the theory of transformational leadership and the extension of distributed leadership to students, looking at the difference distributed leadership makes on student achievement. Implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015).

Distributed leadership, combined with a shared mission and vision, creates a system of collaborative work towards a common goal. Relevance is a meaningful caveat of student engagement and achievement, specifically student feelings of connection and engagement in activities that align to student interests whether addressing curriculum, leadership, or extracurricular activities. If students find their role or involvement to be meaningful, they are

more likely to experience success and increased involvement (Fletcher, 2008; Burgess & Houf, 2017). Fletcher goes on to identify "meaningful student involvement as the process of engaging students as partners in every facet of school change for the purpose of strengthening their commitment to education, community, and democracy" (Fletcher, The architecture of ownership, 2008). The Leader in Me is one such system of distribution of leadership whereby students are provided the opportunity to feel connected and engaged in their learning community. It is important to note that the Leader in Me is a multi-step system of distributed leadership and goal setting. Not only is leadership and goal setting distributed amongst students, but also amongst staff. All stakeholders are united around a group mission statement while also living true to personal mission statements and the overall focus of the 7 Habits (Covey, 1998; Covey, 2008).

Theoretical Framework

Transformational Leadership was a term coined by James MacGregor Burns in 1978 as a result of his examination of behavior of various political and social leaders throughout history. This theory describes a type of leadership where leaders and followers engage in a mutual relationship of motivation interlaced with morality and with a focus on collective purpose. Burns (1978) identified transformational leadership as leadership leading to self-fulfillment and self-actualization based around achievement of a higher purpose. He went on to discuss the extraordinary influence a transformational leader can have for his/her followers stating that these followers become mobilized and empowered by this influence, growing to become morally inspired with intense purpose and value becoming leaders on their own while charging towards a unified purpose. Burns (1978) further contrasted this theory of leadership with transactional leadership which he identified as a managerial type of leadership aligned with a give and take model of achievement. The work of Burns was expanded on by Bass (1985) who identified the

Four “I’s” of transformational leadership including individual consideration, intellectual stimulation, inspirational motivation, and idealized influence. Through collaboration between leaders and followers, transformational leadership leads to identification of need leading to a collective vision to guide continuous improvement in an organization through encouragement, motivation, and inspiration that lead to innovation and systematic change (Bass, 1985; Leithwood; 1994; Bass & Avolio, 1994).

This study’s theoretical framework also focused on the work of Richard Elmore and his look at distributed leadership. Elmore (2000) discussed the impact that standards-based reform has had on schools and school systems. He identified the gap between the ever-changing needs of students, the high levels of accountability, and the ability of the administrator of a school to meet the demands of continuous improvement independently. Elmore (2000) emphasized

> In a knowledge-intensive enterprise like teaching and learning, there is no way to perform these complex tasks without widely distributing the responsibility for leadership (again, guidance and direction) among roles in the organization, and without working hard at creating a common culture, or set of values, symbols, and rituals. Distributed leadership, then, means multiples sources of guidance and direction…It means, rather, that the job of administrative leaders is primarily about enhancing the skills and knowledge of people in the organization, creating a common culture of expectations around the use of these skills and knowledge…and holding individuals accountable for their contributions to the collective result (p.15).

This basis of distributed leadership can be found in the values and mission surrounding philosophical views of The Leader in Me system which embodies the common culture of high

expectations and accountability while distributing leadership not only to the staff members of a given school, but also to the students individually.

This study also focused on the research of Stephen Covey and his study of The Seven Habits of Highly Effective People. Covey outlined seven habits that would allow people to achieve interdependence through a focus on self-mastery, teamwork, collaboration and communication (Covey, 1989). The core of Covey's research came from a long-term study into the behaviors of successful leaders to determine the principles that result in success. Through his research, Covey identified success as being identified by attitude toward others, public image, and outward behaviors (Covey, 1989). Covey ascertained lasting change occurs when an individual has a clear understanding of self, beliefs, previously held paradigms, assumptions, and generalizations that impact the actions we take. Covey classified the behaviors necessary to bring about this lasting change into 7 Habits including Be Proactive, Begin with the End in Mind, Put First Things First, Think Win-Win, Seek First to Understand then to be Understood, Synergize, and Sharpen the Saw (Covey, 1989).

This research was also based on the research of Bransford et al (1999) when he identified three key findings on teaching and learning. The first of these findings discussed students' schema in terms of how the world works and the importance of playing on prior knowledge to engage this schema and enable students to grasp new concepts and learning that allows students to make sense of their learning and how it applies to the world around them. Bransford's second finding acknowledged in order to develop a deep level of understanding, deep levels of foundational and factual knowledge must be obtained within a framework that allows students to understand and retrieve the concept so they are able to apply the concepts in the future. Usable knowledge develops from deep understanding allowing students to discern patterns and

relationships that will better enable them to apply knowledge to future situations. Finally, Bransford identified a "metacognitive approach to instruction [which can] help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them" (pg. 18). These metacognitive strategies are not innate to students' learning and understanding and must be taught within the context of the subject matter they are learning. Bransford went on to indicate these strategies are not generic and cross-curricular but must be taught in context. Chapter Two will further review the work of Bransford in relation to other researchers in student learning to relate distributed leadership and how students learn to academic achievement.

Definition of Key Terms

The following terms are important to the understanding of this study. A definition of each was described to provide clear understanding of these components.

Transformational Leadership. A concept whereby "leaders and followers raise one another to higher levels of morality and motivation" (Burns, 1978). This concept is further explained as leadership that centers on integrity, fairness, high expectations and goals, encouragement, support, recognition, emotional drive and motivation, inspiration, and working for the common good of an organization (Bass, 1985)

Distributed Leadership. The practice of leadership whereby systematic, positive and influential improvement brought about by shared influence and building capacity for change can be brought about by interdependent interactions building on the collective efficacy of all levels of an organization (Harris, 2014).

Shared Vision. The commitment of each member of an organization to a common mission and vision for the direction the organization is moving in. The "sense of commonality that permeated the organization and gives coherence to diverse activities" (Senge, 1990).

Systems Thinking. The analysis of the way the individual parts of a larger system work together for the greater good of the organization. Systems thinking includes characteristics such as hierarchy, flexibility of organization, and resilience (Senge, 1990; Meadows, 2008).

Mental Models. "Deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (Senge, 1990).

Team Learning. "A relatively permanent change in the team's collective level of knowledge and skill produced by the shared experience of team members" (Ellis, Hollenbeck, Ilgen, Porter, & West, 2003)

Personal Mastery. "The discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively…an essential cornerstone of the learning organization-the learning organization's spiritual foundation" (Senge, 1990 p.7)

21st Century Skills. Various skills necessary to be taught to children to prepare them for the 21st century workforce. These skills include digital literacy and citizenship, collaboration, communication, critical thinking, creativity, and cultural awareness (Tharamuraj, Krishnan, & Perumal, 2018).

The Leader in Me. A system created by Muriel Summers, Stephen Covey, and the Franklin Covey Institute to bring the 7 Habits to elementary schools around the world (Covey, 2011).

The 7 Habits. Stephen Covey's The 7 Habits of Highly Effective People and include (1) Be proactive (2) Begin with the end in mind (3) Put first things first (4) Think win-win (5) Seek first to understand then to be understood (6) Synergize (7) Sharpen the Saw. The 8th Habit, Find you voice, was identified after the original writing of The 7 Habits of Highly Effective People. Also found in Sean Covey's The 7 Habits of Highly Effective Teens and The 7 Habits of Happy Kids (Covey, 1989; Covey, 1998; Covey, 2008, Covey, S., 2008).

Lighthouse School. A school that has completed the training regimen outlined in The Leader in Me and provided by Franklin Covey and the on-site review conducted by Franklin Covey ensuring fidelity of implementation of the system (Franklin Covey Education, 2019).

Character Education. "The intentional attempt in schools to foster the development of students' psychological characteristics that motivate and enable them to act in ethical, democratic, and socially effective and productive ways" (Berkowitz, Althof, & Bier, 2012).

Social Emotional Learning. The "process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions" (CASEL, 2019).

Limitations, Delimitations and Assumptions of the Study

Limitations

The limitations for this study were relative to geographical area and designs used by the researcher, and are indicated as follows:

1. The study utilized ex post facto data from one year of Missouri Assessment Program (MAP) testing.

2. This study only explored differences between MAP proficient and advanced percentages for schools who participate in implementation of The Leader in Me which distributes leadership to students and schools who do not participate in implementation of The Leader in Me.
3. The data was limited to the 2017-2018 school year. The assessment utilized the 2017-2018 school year in singularity to reduce introduction of additional variables as a result of changes in the MAP assessment format and content from prior years.
4. This study was nonexperimental.
5. The participants in this study were limited to public elementary schools that served 4th grade students in the state of Missouri.
6. The validity and reliability of the study was limited to the accuracy of the data as reported to and confirmed by the Missouri Department of Elementary and Secondary Education (DESE).
7. The validity and reliability of the study was limited to the accuracy of the data as reported by Franklin Covey Education.

Delimitations

Delimitations that may have existed in this research study are as follows:

1. This study was limited geographically to public elementary schools within the state of Missouri, including any schools serving students in grade 4.
2. This study did not include charter or private schools, based on the idea that charter and private schools do not regularly participate in state mandated testing in the state of Missouri.

3. This study utilized The Leader in Me as the system of implementation of distribution of leadership to students.
4. This study utilized MAP proficient and advanced percentages to measure student achievement.
5. The theoretical framework of this study was based on the work of James MacGregor Burns' study of transformational leadership, Richard Elmore's study of distributed leadership, Bransford's study of how people learn, and Stephen Covey's work on The 7 Habits of Highly Effective People.

Assumptions

1. It is assumed that the assessment data and demographics of Missouri public schools found on the Missouri Department of Elementary and Secondary Education (DESE) website was accurate.
2. It is assumed that the data gathered through the Missouri Assessment Program is statistically sound.
3. It is assumed that the list of schools participating in the chosen program of distributed leadership (The Leader in Me) is current and accurate.

Design Controls

A quantitative causal comparative research study was used to collect data to determine the difference between academic achievement of students in a system of leadership distributed to students versus academic achievement in a system where leadership is not distributed to students. The researcher utilized data collected from the Missouri Department of Elementary and Secondary Education (DESE) utilizing assessment data from a sample population of 4th grade Missouri Assessment Program (MAP) proficient and advanced percentages for the 2017-2018

school year. The research conducted in the study utilized nonexperimental data that was ex post facto therefore the researcher was not the one that implemented the assessments and the data was collected after the fact. The most recent scores were retrieved on the DESE website regulated by Core Data and MOSIS systems managed by the Office of Data System Management at DESE (DESE, 2019).

The MAP includes assessments given statewide in grades three through eight. These assessments meet statutory requirements set forth by state and federal government. The purpose of the assessment is to determine student progress toward mastery of Missouri Learning Standards as outlined by DESE (DESE, 2018). The researcher utilized data from 4th grade assessments due to the fact that 4th grade is the second year students are assessed by the MAP which allows students experience with this type of academic testing and assessment percentages are therefore not impacted by lack of prior exposure to standardized testing. Furthermore, The Leader in Me is implemented in more elementary schools than middle schools, allowing the researcher to have adequate sample size for data analysis. The ELA assessment for students in grade 4 required approximately 3-5 hours and included multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. The assessment for grade 4 also includes a written response which is scored utilizing a 10-point rubric evaluated by human readers who have been trained in the expectations for proficiency (DESE, 2018). The mathematics assessment also includes multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. In addition, the mathematics assessment includes a performance event which allows students to demonstrate high-order thinking to analyze real-world problem. The performance event includes hand-scored responses as well as machine-scored responses (DESE, 2018). All grade-level

assessments result in an individual student scale score which translates to a proficiency level of below basic, basic, proficient or advanced. Individual schools are then provided with a percentage of students who performed in each of the proficiency levels. The researcher utilized proficient and advanced percentages for this research. In addition to overall percentages in the category of proficient and advanced across the entire school population for schools in the state of Missouri, the researcher analyzed proficiency in relation to district enrollment, free and reduced lunch percentage, and location in both mathematics and English language arts. The state of Missouri includes 518 districts with an elementary population including 1,228 elementary schools serving students between grades pre-K through 6. Geographic regions in Missouri include rural, urban and suburban districts. Demographics are reported by school districts to DESE throughout the year.

The researcher utilized The Leader in Me website controlled by Franklin Covey Education to determine schools that were implementing The Leader in Me. Schools are identified as implementing Leader in Me if they are receiving training through a partnership with Franklin Covey Education. Through implementation of Leader in Me, schools participate in ongoing learning opportunities while facilitating leadership to staff and students schoolwide, teaching The 7 Habits explicitly and effectively while modeling the components of those Habits, partnering with families, sharing leadership through a common culture, mission, and vision, identifying and tracking goals and progress towards those goals, students leading their own learning through needs assessment, goals setting, and data tracking, and a collaborative environment evident in trusting relationship, high level of engagement by all stakeholders, and reflective planning (Franklin Covey, 2018). Once individual schools have participated in this programming for approximately four years and have met the criteria outlined by Franklin Covey, they are eligible

to apply for Lighthouse certification. As a result of this certification, the researcher determined the grouping of years four and beyond. The researcher differentiated between schools who were in various stages of implementation of The Leader in Me at the time of test administration and schools who were not implementing The Leader in Me program at the time of test administration.

Summary

"The fundamental unit of accountability should be the school, because that is the organizational unit where teaching and learning actually occurs" (Elmore & Institute, 2000, p.4). Schools are held accountable for the development of all students. While federal mandates hold schools accountable for the academic achievement and career readiness of their students, there are additional accountability factors at play. Social-emotional growth, character development, 21st century learning and leadership are all necessary in the development of the whole child. With the ever-growing needs of students coupled with continuous improvement efforts of schools aligned to federal mandates, it is necessary to look for ways to increase student achievement while preparing students for their future. The purpose of this study was to look at the difference in 4th grade ELA and mathematics achievement in 2017-2018 between schools that are in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

This chapter contained an overview of the history of school reform mandates leading schools to look for ways to improve student achievement while meeting the needs of the 21st century learner. One way some schools are seeking to meet this multi-faceted need is to implement methods of distributing leadership to students. However, there is a gap in research of

academic achievement between schools that distribute leadership to students and schools that do not distribute leadership to students. This study conducted a quantitative causal comparative study to determine the differences in achievement scores.

Chapter Two will review literature surrounding the call for educational reform leading to implementation of transformational leadership. Next, distributed leadership will be reviewed before transitioning into an examination of Stephen Covey's work on leadership and how this influences student learning. The literature will extend into how this leadership aligns to 21st Century learning and social-emotional learning before a presentation of The Leader in Me and the stages of Leader in Me implementation in elementary schools. Chapter Three will include the research methodology used to determine the difference between academic achievement in schools that distribute leadership to students and those who do not distribute leadership to students. The results of this research will be discussed and analyzed in Chapter Four. Chapter Five will conclude with the summary of the research leading into recommendations for further research on the topic of student leadership and academic achievement.

REVIEW OF LITERATURE

Introduction

Schools across the nation are challenged with the responsibility of cultivating the skills of collaboration, communication, character and critical thinking to meet the ever-changing needs of a constantly shifting society. Through monumental calls for reform, schools are tasked with the challenge to meet high standards of accountability for student achievement through continuous improvement efforts. A task too large to be undertaken by the school leader independent of the support of others, transformational leadership allows leaders and followers to engage in a mutual relationship of motivation interlaced with morality and with a focus on collective purpose (Burns, 1978). The collective purpose of increasing student achievement can be achieved through distributed leadership where a common culture of expectations aligns with accountability, collaboration, and continuous job-embedded professional learning through collective inquiry (Bransford, 1999; Elmore, 2000; Erkens and Twadell 2012; Kotter, 1996 & 2014; Fullan, 2001 & 2015; DuFour, DuFour, Eaker et. all 2016; Kanold, 2017). Further distribution of leadership to students through enhancement of self-efficacy including setting goals, tracking progress towards those goals, and examining effort and action steps towards those goals allows students to take ownership of their own learning to increase student achievement (Bransford, 1999; Covey, 2008; Marzano & Pickering, 2011; Dweck, 2008).

The following review is an investigation into the current literature surrounding the topics of transformational and distributed leadership, student leadership, and how students learn. This review will initially investigate transformational leadership and distributed leadership including student leadership. This portion of the review will focus on the work of James MacGregor Burns and his theory of transformational leadership, as well as the work of Richard Elmore and his

work on distributed leadership. Next, the review will include an investigation into how students learn and the distribution of leadership to students, resulting in students owning their own learning. The work of John Hattie and Robert Marzano will guide this portion of the literature review. This review will further include current literature surrounding student academic learning and character education through social-emotional learning, looking into the implementation of specific programs that distribute leadership to students. This portion of the review will include research into a culture of shared leadership, the learning pertinent to incorporation of distributed leadership, and the alignment to goal setting and student-led academics. As a result of this review of literature, in conjunction with the research and data, this study will investigate the relationship between the distribution of leadership to students and academic achievement.

School Reform

In 1965, the Elementary and Secondary Education Act known as ESEA, was signed into law by President Lyndon B. Johnson. The creation of this law clarified the federal government's role in K-12 education, offering aid to school districts' in order to create equality and quality in education. In an effort to increase equality, this law provided additional resources to low-income students and grants to state agencies in an attempt to improve the overall quality of education in public schools across the nation under statutory section Title I (Brenchley, 2015). Despite the efforts of the federal government to increase resources available for public education, education still remained a local issue and as a nation, we fell short of meeting the goals set forth by ESEA. In their book, The Fourth Way, the Inspiring Future for Educational Change, Hargreaves and Shirley relate the early years of ESEA to the First Way where creativity enters public schools leading to increased innovation and high levels of support from the public. While this was known

to be a period of optimism and freedom in education, evidence-based improvement was at a minimum and uneven school performance was prevalent (Hargreaves & Shirley, 2009).

In the later years of ESEA, inequality in education and increased focus on underperformance of some subgroups led to the focus on equity for all. Competition and prescriptive educational practices took precedence over innovation and teacher autonomy, leading to increased standardization and a stronger focus on achievement data. The Second Way laid claim to identification of educational inequalities and underperforming students, specifically those of various subgroups (Hargreaves & Shirley, 2009). In 2002, the Elementary and Secondary Education Act was updated to become the No Child Left Behind (NCLB) law. This update increased the federal role in school accountability for student achievement and attempted to create increased accountability for student achievement. As part of a collaborative effort among businesses, government agencies, civil rights activists and the Bush administration, the goals of NCLB included closing the socioeconomic achievement gap and increasing the competitive American market (Editorial Projects in Education Research Center, 2015). As part of the increased role of federal government in school accountability, states who chose not to comply with updated requirements risked loss of federal Title I monies.

Under NCLB law, standardized testing in reading and math for grades 3-8 and additional standardized testing of high school students was implemented. Results from these assessments were reported as both overall student population and subgroup population including limited English proficiency, special education, ethnicity, race, and socioeconomic status. NCLB indicated that all states must bring 100% of students to the proficient level, as indicated by state-created common assessment, by the 2013-2014 school year. Proficiency was determined at the state level (Editorial Projects in Education Research Center, 2015). While results of assessments

were compared across the country, it is important to note that assessments varied from state to state and the measure of proficiency was not standardized between states.

Adequate yearly progress (AYP) was the tracking method used to determine if schools were meeting the goals of NCLB. As determined by NCLB, states were allowed the opportunity to determine what defined AYP, but the government mandated the following be included in the determining factors: (1) state testing should be the primary determining measurement of AYP, but a minimum of one other academic indicator of school progress was also to be included; (2) graduation rate was required to be the other academic indicator for secondary schools; (3) the goal of 100% proficiency by spring of 2014 should be measured by a baseline established on 2001-2002 school year data; (4) reading/language arts and math were to be assessed separately but must both be included. Furthermore, student subgroup data including English-language learners, students with disabilities, low socioeconomic status, ethnicity, etc., were to be disaggregated; (5) state assessments must be completed by 95% off all students (Editorial Projects in Education Research Center-Adequate Yearly Progress, 2011). As the 2014 deadline approached, many school districts across the country found themselves unable to continue to make AYP resulting in requests for waivers and flexibility that ended with a rework of the law. This Third Way thinking looks at increased accountability as the primary way to increase achievement for all students, focusing on data, analysis of data, and student tracking, leading teachers away from impassioned teaching and learning as the focus (Hargreaves & Shirley, 2009).

In December of 2015, Every Student Succeeds Act (ESSA) was signed into law by President Barrack Obama. This reauthorization of ESEA includes updates to the law that are focused on ensuring all students are prepared for success beyond high school. This

reauthorization moved accountability from the federal level to the state level. The state is responsible for submitting accountability plans to the Federal Department of Education, but the locus of control lies with each state (Every Student Succeeds Act (ESSA): A Comprehensive Guide, n.d.). State assessment remains a key component of ESSA, requiring a minimum of three standards of achievement (e.g., basic, proficient, advanced) in math, reading/language arts, and science, but an increase in public involvement and choice became more prevalent. ESSA attempts to move towards the Fourth Way of thinking yet falls short of establishing the "six pillars of purpose and partnership (1) an inspiring and inclusive vision; (2) strong public engagement; (3) achievement through investment; (4) corporate educational responsibility; (5) students as partners in change; (6) mindful learning and teaching (Hargreaves & Shirley, pg 73)".

Through the years of educational reform and the attempts at meeting the needs of individual students, public schools continue to fall short of the innovative thinking called for by Hargreaves and Shirley in their identification of the Fourth Way. In order to meet the need for inspirational and inclusive vision, investment leading to increased achievement for all, a focus on teaching and learning through a balance of data-driven decision making, innovation, and research-based best practices, and creating a student partnership leading to education change (Hargreaves & Shirley, 2009), public education needs to look at the importance of excellent leadership, leadership styles and school culture as a way to implement lasting change while meeting the call laid out by ESSA. Transformational leadership is a leadership practice that allows leaders to build the capacity of all staff members to meet ever-changing accountability standards. Through transformational leadership, staff members learn how to develop new ways of thinking that will allow new learning and transform school culture leading to creation of new vision, high performance expectations and academic excellence (Simsek, 2013).

Transformational Leadership

"Leadership is not mobilizing others to solve problems we already know how to solve, but to help them confront problems that have never yet been successfully addressed" (Fullan, 2001, p.3). In the world of education which is filled with constant need for reform and continuous improvement, excellent leadership is the driver of educational reform. Leaders seeking to implement lasting change in order to rise to the call for academic excellence, must display excellent leadership abilities that will lead to shared vision, innovative problem solving, intentional change, shared leadership, and high levels of accountability held by all members of the organization. Many researchers on culture, change, and leadership share common threads that result in a concept called transformational leadership.

In 1978, James McGregor Burns first introduced the concept of transformational leadership. Burns discussed two types of leadership: transactional and transformational. Burns explains transformational leadership to be the engagement between individuals that allows leaders and their constituents to "raise one another to high levels of motivation and morality" (p.20) where transactional leadership focuses more on the managerial side of leadership (Burns, 1978). Through collaboration between leaders and followers, transformational leadership results in identification of need leading to a collective vision which guides continuous improvement in an organization. Through encouragement, motivation, and inspiration leading to innovation and systematic change, transformational leaders are visionaries who lead through the frame of symbolic leadership. Transformational leaders lead through example, frame experiences with a positive outlook, communicate strong and hopeful vision, and intentionally motivate through storytelling focusing on the past, present, and future (Bass, 1985; Leithwood, 1994; Bass & Avolio, 1994; Bolman and Deal, 2008; Whitaker, Zoul,& Casas, 2017). Bass (1985) identified

four basic elements that characterize the behaviors inherent in transformational leadership. Referred to as the four "I"s of transformational leadership (Sosik & Dionne, 1997). The first of these behaviors is individual consideration which refers to a leader's ability to provide individualized attention to each person on a team. Individual consideration includes coaching and mentoring that will allow followers to meet and maintain the high expectations set forth by the leader of the organization while also sharing their own ideas and feeling supported in implementation of those ideas. Development of followers results in capacity building when the leader serves as coach (Goleman, 2000). The second identified behavior includes intellectual stimulation which focuses on innovation and new ways of thinking, challenging followers to think about problems and solutions in ways that challenge the norm while also providing opportunities to look to values and beliefs to frame and reframe thinking. Inspirational motivation details the use of inspirational vision, encouragement, and communication of high expectations in a positive manner allowing followers to feel encouraged, supported, and challenged. Finally, idealized influence is the identification of a strong vision and mission coupled with the leader's dedication, drive, desire, and complete commitment to the identified mission and vision (Bass, 1985).

Marzano, Waters, and McNulty (2005) discussed the importance of the four "I"s when seeking to meet the challenges encountered when teaching and leading in the 21st century. Individual consideration is demonstrated by school leaders who identify and address the needs of all staff members while providing individualized attention, "particularly to those who seem left out" (Marzano, Waters, & McNulty, 2005). Further demonstrating how these characteristics of leadership are at the forefront of transformational leadership in a school setting, Marzano, Waters and McNulty (2005) also shared the value of intellectual stimulation by looking for

innovative ways to solve problems. Transformational leaders provide inspirational motivation by establishing and maintaining a culture of high expectations for all stakeholders. Finally, idealized influence encompasses the integrity of the leader in demonstrating character, high expectations, beginning with the end in mind through goal-setting and action steps, and proactive behaviors to provide a model for the behaviors expected by teachers (Marzano, Waters, & McNulty, 2005).

Michael Fullan (2001 & 2015) identified characteristics of effective leadership by identifying five forces that result in positive change. While Fullan focused on the behaviors of leaders and the impact these behaviors have on followers, he also pointed to the impact leadership behaviors have on the organization as a whole, including the impact on students, families, and the community. The behaviors identified by Fullan mirror those called for as transformational leaders. Moral purpose is identified as actions intended to positively impact the lives of staff members in addition to all other stakeholders impacted by the leader of the school organization (Fullan, 2001). Understanding of the change process is another important force identified in Fullan's research. Intentional innovation without innovation for innovation's sake, strong ideas with an analytical approach, coaching and support through implementation dips, learning from collaborator resistance, transforming culture through building capacity, and understanding that there is not a checklist for lasting change are all vital to successful change (Fullan, 2001). The third force Fullan (2001 & 2015) set forth is that of relationships. "Leaders must be consummate relationship builders with diverse people and groups-especially with people different than themselves. Effective leaders constantly foster purposeful interaction and problem solving, and are wary of easy consensus (p.5). This is tied to Fullan's fourth force, which was identified as knowledge creation and sharing, indicated by both individual and collective responsibility for the work that is done (Thiers, 2017). Fullan (2001) indicated that in order for

knowledge to be shared, moral commitment, the importance of exchange of knowledge, and the understanding that information sharing is a social process meaning relationships must be present. Daniel Pink (2009) agreed with these items being motivational for employees, indicating autonomy through self-direction, mastery as an intrinsic driver, and a strong sense of purpose are all motivational for staff members. Fullan added collaborative work with peers towards a common goal to these motivational factors (Fullan, 2015). Transformational leadership aligns closely to Fullan's work in discussion of morality, relationships, coaching, innovation, and intentionality, all leading to growth in an organization.

John Kotter, (1996 & 2014), identified Eight Accelerators leading to transformational change. The first of these steps was creating a sense of urgency. In education, the call for educational reform can assist in the creation of a sense of urgency, and can meet the requirements of the 21st century learner while also meeting the social-emotional needs of the children served in our schools. Second, the formation of a guiding coalition of stakeholders who have a strong ability to communicate based on a relationship of trust and mutual respect creates the team necessary to cultivate continuous improvement and lasting change. Kotter (2014) emphasized the importance of creating involvement by as many stakeholders as possible, while the leaders serve as role models of the relentless urgency for change. Kotter next identified the importance of a shared vision providing clarity and direction followed by communication of the vision. In this step, leading by example, clear communication, positivity and storytelling were all emphasized by Kotter (1996, 2014), aligning closely to Bass's work on inspirational motivation (Bass, 1985). Kotter next discussed the importance of empowering others through training, modeling, and coaching. Empowerment is a vital component of transformational leadership (Senge, 1990; Bass & Avolio, 1994; Bolman & Deal, 2008; Marzano, Waters, & McNulty, 2005;

Fullan, 2001 & 2015,). Identifying and celebrating short-term wins were next identified by Kotter (1996 & 2014) as a step to cultivation of lasting change. Kotter identified the roles of short-term wins as having six beneficial effects on transformation of an organization including providing worth for the sacrifices made by the stakeholders of an organization. These effects include provides positive feedback, allows for adjustments and fine-tuning of vision and the strategies leading to implementation of the vision, undermines the viewpoint of resistors to change, keeps leaders on-board with evidence that the changes identified as necessary are being addressed, and builds continued momentum. The next step identified by Kotter (1996) is that of "consolidating gains and producing more change" (p. 137). Maintaining compelling vision at this stage prevents stagnation in change efforts. Finally, Kotter discussed institutionalizing the new approaches as the new culture of the organization (1996 & 2014).

Transformational leadership is about addressing the instructional needs of a learning organization as well as the cultural needs (Bass & Avolio, 1994; Kotter, 2014, Fullan, 2001 & 2015). Transformational leadership practices motivate and inspire individuals towards high levels of achievement through influence on values and motivations aligned to the mission, vision, and values of the learning organization as a whole (Jovanovic & Ciric, 2016). In order to obtain true transformation of an organization to meet the demands of school reform, there must be a shift from management to transformational and distributed leadership to allow for the creation of a partnership between the leader of an organization and the staff members who facilitate the continuous improvement, allowing for distributed leadership in a symbiotic relationship.

Peter Senge (1990) approached leadership through the lens of a learning organization and focused on what were referred to in Senge's seminal work as the Four Disciplines. An important

component of transformational leadership, continual learning through personal mastery (Senge, 1990; Pink, 2009), was the first discipline identified by Senge. The focus on continual learning, clarifying what is important to the individual, seeking to reach a greater mission, and "continually clarifying and deepening personal vision" (p.7) is at the forefront of transformational leadership. Through this reflection and deepening of understanding, coherence and clarity towards a collaborative vision becomes the driving force behind continuous improvement (Senge, 1990; Covey, 2008; Twadell, 2012; Kotter, 2014; Fullan, 2015; Kanold, 2017). The next discipline is mental models, which Senge explained as the "deeply ingrained assumptions, generalization, or even pictures or images that influence how we understand the world and how we take action" (p. 8). In order to address mental models, Senge identified the need to reflect on inner talk and to balance these assumptions with inquiry, seeking understanding while allowing influence of others to shape individual thought. Roger Schwarz (2013) corroborated this in his description of eight behaviors for smarter teams, sharing the importance of expressing individual views while asking questions to understand the views of others. In a collaborative environment, the understanding of individual assumptions allows members of the learning organization to engage in professional learning opportunities with their peers to merge understanding to positively impact organization and instructional practices leading to continuous improvement. (Senge, 1990; Bailey & Jakicic, 2012; Erkins & Twadwell, 2012; Simpson, 2014; Kotter, 2014; Fullan, 2015; DuFour, DuFour, Eaker, et. al 2016). The next discipline focused on creation of a shared vision to create commitment to the organization and common goals including the practices and principles that will guide the organization towards that shared vision. The fourth discipline is that of team learning known as the increased capacity for learning that occurs through shared vision and actions aligned to attainment of that vision (Bass,

1985; Senge, 1990; Leithwood, 1994; Bass & Avolio, 1994; Bolman & Deal, 2008; Kotter, 2014; Fullan, 2015). In order to achieve this, conversation, communication, shared purpose, and the suspension of assumptions are critical to the success of team learning (Senge, 1990). Senge goes on to identify the Fifth Discipline as being the compilation of the other four disciplines to create a learning organization.

Many researchers identified common themes focusing on transformational leadership and affecting change. These themes included development of a clear vision and mission, communication of a clear direction centering on innovation, problem solving, cooperation and influence, motivation and inspiration focused on the fulfillment of values and integrity, and implementation of systematic planning and goal-setting leading to continuous improvement through empowerment, collaboration and teamwork all rooted in relationships and collective efficacy (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty, 2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015). This type of leadership continuously speaks to empowerment, relationships, and collective efficacy, a habit that Stephen Covey refers to as synergy (1989).

In Good to Great, Jim Collins discussed the importance of getting the right people focused on a clear vision of excellence, focusing on the mission and vision without getting sidetracked, and ensuring high expectations throughout improvement efforts (Collins, 2001). In order to successfully implement transformational leadership resulting in continuous improvement and systematic change, leaders must rely on their followers to implement and carry-out the identified vision. Leaders cannot implement all aspects of this type of leadership independent of the support and shared leadership of others in the organization (Thornton, Usinger, & Sanchez, 2019). As a result, the distribution of leadership and leadership roles to staff

members is a vital component of the success of educational reform through transformational leadership.

Distributed Leadership

Distributed leadership is a concept that focuses on the understanding that comprehensive improvement is a result of intentional and systematic action shared among individuals with a wide range of expertise (Elmore, 2000). In his seminal work from 2000, Richard Elmore discussed the inability of public schools in their current state of mind to meet the demands of school reform. Researchers agreed with the need for sweeping change to how schools do business, listing instructional leadership and systematic reform as key elements to assist in meeting these demands (Elmore, 2000; Kohler-Evans, Webster-Smith, & Albritton, 2013). In identifying problems that schools may face in their efforts to achieve these levels of sweeping, standards-based reform, Elmore pointed out the following four difficulties. The first difficulty is what he referred to as the problem of scale. Elmore (1996) discussed the unlikelihood that sweeping change and innovation last long enough to maintain systematic change in educational practices including student learning, instructional practices, and communication. In order to see lasting change, educators must address this problem of scale, and change the core across the system, allowing for increase in performance systematically and over time, a task that cannot be completed in isolation in an organization that is attempting to create long-lasting change (Thornton, Usinger, & Sanchez, 2019). DuFour, DuFour, Eaker, et. al. (2016) agreed and focused on the need for intentionality of collaboration to reduce the likelihood that innovative instructional practices impacting student learning are completed in isolation.

The second problem identified by Elmore (2000) is the problem of context. He clarified this as each system within the larger system having knowledge and understanding of a smaller

key to overcoming the overall inadequacies of the larger system. This problem brings to light the various cultural norms, background knowledge, overall exposure, attitudes, cognitive abilities, etc. These differences combined with varied strengths of educators in the classroom, can identify and create pockets of improvement, but the problem becomes how to implement structures and processes that produce generally consistent results across all grade levels and classrooms.

Elmore (2000) further identified the problem of feedback as a barrier to systemic change. Successful feedback requires open communication and collaboration based on the successes and failures of the various working parts in any school organization. Brown (2012, 2018) spoke to the importance of collaborative feedback to solve problems through communication and relationships both when giving and receiving feedback. In order for continuous improvement to occur, commonalities in what creates success combined with identification of obstacles and challenges allow members of the system to create judgements about how improvement can occur. Researchers agree in systems where all individuals attempt to implement instruction in the same way, it is difficult to develop evidence to indicate how improvement can be achieved. Productive feedback can be achieved through implementation of systems of collaboration, data gathering and analysis, analysis of effective instructional strategies and discussion of how systemic improvement can occur (Allison, et al., 2011; Goodwin & Miller, 2012; Bailey & Jakicic, 2012; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Muhammad & Cruz, 2019).

The final problem identified is that of benchmarks or standards. Elmore (2000) pointed to the fact that there is usually someone who knows how to do something better than the individual leading the change, even when that individual is well versed in the topic. The problem facing many schools is how to find the individuals that have and can share this knowledge in a context

applicable to the current reality of the identified school. Acquiring the knowledge necessary to overcome this problem requires on-going analysis, inquiry, and a willingness to seek out new ways to implement practices based on similarities and differences found between the current organization and the one with practices that can lead to continuous improvement. Researchers agree when everyone shares a sense of responsibility and community surrounding systematic problems, all members of the team together can be more insightful in developing a plan for continuous improvement, raising the intellectual abilities of the group as a whole (Senge, 1990; Schwarz, 2013; Kannold, 2017; Covey, 1989 and 2019).

"Improvement, then, is change with direction, sustained over time, that moves entire systems, raising the average level of quality and performance while at the same time decreasing the variation among units, and engaging people in analysis and understanding of why some actions seem to work and others don't" (Elmore, 2000, p. 13). The question leaders face is how to facilitate high levels of improvement while ensuring the above barriers don't impede or altogether halt progress or place the weight of continuous improvement on one individual. Distribution of leadership allows transformational leaders to perform the multifaceted tasks necessary to accomplish sweeping reform. Distributed leadership can be identified as the distribution of responsibilities amongst a variety of sources within the school organization. This distribution should occur under a common set of values, expectations, and norms in a way that provides guidance and direction to achieve the common goal of continuous improvement. Further explained, transformational leaders utilize distributed leadership when they allocate shared responsibility by identifying and building upon the individual strengths and skills of members of the organization. Transformational leaders utilize those traits to collaboratively reach the expectations set forth through a common culture of high expectations and mutual

accountability for the achievement of the results of the organization as a whole (Elmore, 2000). Distributed leadership then aids in not only the development of a clear vision and mission, communication of a clear direction centering on innovation, problem solving, cooperation and influence, motivation and inspiration focused on the fulfillment of values and integrity, and implementation of systematic planning and goal-setting leading to continuous improvement, but does so through empowerment, collaboration and teamwork all rooted in relationships and collective efficacy (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty, 2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Kannold, 2017; Muhammad & Cruz, 2019). Transformational leaders are those who lift up and inspire others through clear vision and mission and then utilize distributed leadership to empower others and distribute various aspects of improvement with guidance and on-going systems of support create strong systems of continuous improvement and systemic change.

The art of teaching and learning is a complex task made better through distributed leadership which allows individuals within the learning organization to play to their unique strengths creating systemic improvement aligned to a common and collaborative culture, mission, and vision (Senge, 1990; Muhammad, 2009; Allison, et. al 2011; Fullan, 2015). Leaders who utilized distributed leadership to create lasting change have a strong understanding of the strengths and specializations of the individuals they lead and are able to organize those diversities to maximize potential by playing on individual strengths. Educators who specialize according to their own interests, aptitudes, background knowledge, cultural understandings, etc. are better able to serve their organizations in a greater capacity. Within any system, individuals have varied competencies that, when share with others, increase the collective understanding of

all individuals in an organization (Elmore, 2000; Kotter, 2014). These individuals are able to provide professional learning opportunities to their peers in order to increase the collective efficacy of the learning organization (Hattie, 2012). Professional learning communities are one system of distributed leadership that allow educators to engage in opportunities for professional learning through collective responsibility for the success or failure in the learning of all students. Through professional learning communities, educators share instructional practices, learning opportunities, assessment and teaching methods, data-driven decision making, and mutual accountability focused clearly on specific issues related to teaching and learning which allow teachers to learn how to systematically improve instruction and, therefore, student achievement (DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012).

"Organizational coherence on basic aims and values, then, is a precondition for the exercise of any effective leadership around instructional improvement" (Elmore, 2000, pg. 17). The work of many researchers points to the necessity of systematic improvement based on a shared set of norms and cultural beliefs, combined with empowerment of individuals within the organization as a way to systematically improve teaching and learning (Burns, 1978; Bass, 1985; Senge, 1990; Elmore, 2000; DuFour, DuFour, & Eaker, 2008; Bolman and Deal, 2008; Shein, 2010; Hattie, 2012; Fullan, 2015). One factor missing in these works is the further distribution of leadership and learning to the individual student. Researchers speak to the profound impact transformational and distributed leadership has on teaching and learning, but little research has been done to analyze the impact of the distribution of leadership, leadership skills, and accountability for learning to students.

Leadership and Student Learning

The successful operation of a school directly impacts the academic success of students. Through transformational leadership and distributed leadership, school leaders have the opportunity to positively impact student learning and achievement. Marzano, Waters, & McNulty (2005) identified a scenario contrasting highly effective versus highly ineffective schools. Through a meta-analysis involving 2,802 schools, they discovered a correlation between principal leadership behaviors and student academic achievement. Furthermore, they were able to identify a correlation between 21 leadership behaviors referred to as responsibilities, and their effect on student achievement. In their book School Leadership that Works, Marzano, Waters, and McNulty (2005) identified 21 influential behaviors that impact teaching and learning. Many of these responsibilities related directly to the behaviors identified by others as imperative for distributed and transformational leadership. Change agentry was listed as one of these behaviors and includes a willingness to challenge the this is what we've always done mentality while also looking for ways to improve things that have proved to have a positive impact. Open communication and collaboration was also identified as a responsibility necessary to facilitate systematic and continuous improvement. Like many other researchers, Marzano, Waters and McNulty also recognized the importance of culture including a shared set of beliefs and a common positive vision as an important aspect of change leadership. Focus and flexibility are also noted to be imperative to the success of a learning organization. Clear goals and transparent communication on the basis of high expectations and clear action steps, intellectual stimulation where collaboration and professional learning centered on current research and best practices, assessment and the monitoring and evaluating of the impact of current practices on student

learning, and a strong focus on relationships were all identified as vital aspects of highly effective schools (Marzano, Waters, & McNulty, 2005).

Through each of these leadership responsibilities, the impact of transformational and distributed leadership was clearly identified as having a direct positive impact on student achievement (Marzano, Waters, & McNulty, 2005). Relationships with staff and students, the ability to act as a change agent, flexibility in leadership style to meet the needs of staff and students, communication, input, optimizing, and situational awareness are all imperative to success as a transformational leader (DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016) . Leaders who are able to distribute leadership to staff are better able to incorporate the 21 Leadership Responsibilities into their everyday interactions with all stakeholders as a result of sharing the immense responsibilities outlined above. In addition to distribution to staff, leadership distributed to students can have significant impact on student achievement. John Hattie (2012) determined through research studies and a meta-analysis of 252 influences on student achievement and the effect sizes related to those influences that self-reported grades (otherwise known as student expectations of themselves) comes out atop all other influences of student achievement. He goes on to explain the teaching must be visible to the student and "the more the student becomes the teacher and the more the teacher becomes the learner, then the more successful are the outcomes" (Hattie, 2012 p. 17).

Students bring with them a variety of attributes that impact their learning. These include prior knowledge and achievement, familial beliefs and expectations of education, socioeconomic status, etc. They also bring with them internal motivation and attitudes toward learning, confidence or lack thereof, and strategies they have learned throughout their education. Hattie (2002) discussed some of the internal processes that students carry that can impact learning. One

of the first attributes identified was self-efficacy which is the belief in ourselves that we can make learning happen. Students with high levels of self-efficacy are more likely to confront challenges and difficult tasks head-on with strong effort. Another attribute noted was self-handicapping identified as students finding obstacles and excuses in place of achievement. Examples include procrastination, low expectations and goals, and reduced effort. A third attribute is self-motivation both intrinsic and extrinsic. Self-goals was the fourth attribute identified by Hattie (2002). These include mastery goals which can be achieved through increased effort, performance goals including competition with peers and linked closely to a perceived fixed ability level, and social goals which include peer interactions and relationships (Marzano, 2007; Hattie, 2012). Differences can be seen in achievement levels when students have varying levels of approach goals which Hattie (2012) indicates is demonstrated when the student strives to master the goal of the lesson versus avoidance goals when the student strives to maintain his or her own status-quo. Self-dependence occurs when adult directives guide the student learning and achievement and students do not develop the self-regulation, self-monitoring, or self-evaluating skills that allow them to develop independence and intrinsic motivation. Self-discounting and distortion is another attribute that impacts learning and achievement and occurs when students dismiss feedback as being invaluable. Self-perfectionism is a barrier attribute that can result in procrastination, standards set so high that failure is imminent, perfectionism resulting in blame and an "all or nothing" approach leading to lack of task completion (Hattie, 2012). Hopelessness refers to lack of belief of the potential for gains in achievement. Finally, social comparison occurs when students refer to the achievements and reactions of others to create their own self-worth. Hattie (2012) pointed to the distribution of learning and leadership from the teacher to the student to allow students to set goals for, monitor,

and see their own learning allowing students to engage in the attributes that benefit them while overcoming the attributes that create gaps in academic achievement. Targeted learning allows this transfer between student and teacher through clear learning intentions or goals and through understanding of the success criteria indicating mastery of the concept.

Like Hattie, Bransford (1999) pointed to the strong correlation between student achievement and student control of their own learning goals and progress towards achieving those goals. The seminal work Bransford (1999) conducted in conjunction with the National Academy of Sciences has provided educators key information about the science of learning. This research looked at students' schema in terms of how the world works and the importance of playing on prior knowledge to engage this schema and enable them to grasp new concepts and learning that enables students to make sense of their learning and how it applies to the world around them. This research also pointed to the development of a deep level of understanding indicating deep levels of foundational and factual knowledge must be obtained within a framework that allows students to understand and retrieve the concept so they are able to apply the concepts in the future. Usable knowledge develops from deep understanding allowing students to discern patterns and relationships that will better enable them to apply knowledge to future situations. The third finding from Bransford (1999) aligned with that found by Hattie as he identified a "metacognitive approach to instruction [which can] help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them" (pg. 18).

This work of many researchers focused on student learning and how students learn, indicates the importance of focusing on more than the academics of teaching and learning. This research indicates the need for teaching character and social emotional learning to enable

students to overcome obstacles, maintain high levels of motivation, sustain effort, set high expectations, and experience self-efficacy to achieve high levels of academic achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012). An increased focus on social emotional learning while also maintaining high levels of academic rigor and intentional instruction creates a whole child approach that creates a framework for providing the necessary learning competencies to create an educational environment with the emotional support and academic and cognitive engagement necessary for high levels of academic achievement (Griffith & Slade, 2018).

Leadership and Social Emotional Learning

In recent years, the importance of teaching character through social-emotional learning has grown in prominence (Griffith & Slade, 2018). According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), social-emotional learning is the "process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions" (CASEL, 2019). The development of social emotional skills in students benefits not only the individual student, but classrooms function in a more efficient and effective manner, allowing for students to have increased behavioral and cognitive engagement, positive relationships, and the ability to overcome adversity when presented with difficult tasks (Bailey, 2015; National Association for Elementary Principals & The Wallace Foundation, 2018). In addition, students who are effectively able to manage their own feelings, emotions, and behaviors are more likely to have increased assessment scores, higher levels of engagement in

their own learning, and stronger collaborative relationships with peers (National Association for Elementary Principals & The Wallace Foundation, 2018).

A 2017 meta-analysis of universal social emotional learning programs indicated social-emotional learning programs demonstrate continuous progress in six domains pertinent to teaching and learning. These six domains include "social and emotional skills, attitudes toward self and others, positive social behavior, conduct problems, emotional distress, and academic performance" (Mahoney & Weissberg, 2018, p.34). This meta-analysis further indicated up to a 13 percentile-point increase in academic achievement (Taylor, Oberle, Durlak, & Weissberg, 2017). This research is supported by the work of many researchers who indicated the strong connection between student achievement and self-efficacy, motivation, perseverance, and confidence (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012).

As educators learn more about the ever-changing needs of students, they seek ways to develop the whole child, create continuous improvement in academic achievement, and prepare students for the world beyond the classroom. Covey ascertained leadership habits, beliefs, and roles allow students to develop these skills in and out of the classroom (2008). Covey's beliefs on student leadership center around his foundational principles of the 7 Habits of Highly Effective People (1989). These habits focus not only on academics, but also on development of the character traits and social learning that increase a person's interpersonal and intrapersonal abilities (Covey, 1989, 2008).

Leadership and the Seven Habits of Highly Effective People

In 1989, Stephen Covey shared his views of transformational leadership when he wrote The Seven Habits of Highly Effective People which outlined seven habits that would allow

people to move themselves from dependence to independence and then from independence to interdependence through a focus on self-mastery, teamwork, collaboration and communication (Covey, 1989). The core of Covey's research came from a long-term study into the behaviors of successful leaders to determine the principles that result in success. Covey discussed the shift in ethics that occurred after World War I. He stated that prior to the 1920s, success and its foundation was rooted in character ethic and included traits such as humility, courage, integrity and patience. After this time, Covey identified a shift to personality ethic where success is identified by attitude toward others, public image, and outward behaviors. He ascertained people these days are looking for shortcuts to success, seeking to identify quick fixes and shortcuts that result in short-term solutions rather than identifying the core problem and seeking solutions for long term change (Covey, 1989). Covey further believed in order to truly change anything, individuals must undergo a paradigm shift that not only alters the surface level of behaviors and the attitudes that create those behaviors, but results in fundamental changes to belief systems that will allow lasting change.

Over the years a variety of education programs that emphasize character education and social emotional learning attempted to create these lasting changes through social and emotional development, intellectual stimulation, and the promotion of ethical decision making as part of a continuous learning process. Goleman (2005) discussed the importance of specific interventions targeted to filling the deficits in social emotional skills and the need to generalize this learning to develop the attitudes necessary to facilitate on-going improvement and lasting change. Similar to Senge's mental models, Covey believed that in order to sustain lasting change, we must have a clear understanding of self, beliefs, previously held paradigms, assumptions, and generalizations that impact the actions we take (Covey, 1989; Senge, 1990). Covey classified the behaviors

necessary to bring about this lasting change into seven Habits which are further grouped into three categories.

Covey's first habit indicated leaders should create the conditions where others are intentionally proactive. This Habit one noted as "Be Proactive" indicated people are in charge of the lives they lead. Self-awareness is a crucial component that allows people to reflect on their own character so they can decide their view of themselves and the situations they are in, allowing individual effectiveness to be controlled by this awareness. Through this habit, Covey discussed the circle of concern versus the circle of influence. The circle of concern are all of the things around individuals that they have to potential to react to. The circle of influence are those things individuals can control and thus the things they should focus on. Habit one is a habit of becoming reflective rather than reactive (Covey, 1989). Senge addressed this when he identified the need to reflect on inner talk and to learn to balance these assumptions with inquiry seeking understanding (1990). This is supported by the work of many researchers in the discussion of continuous improvement through a focus on results orientation and the use of data to create systematic improvements through reflection, collaboration, professional learning, and a growth mindset where educators learn from each other rather than blaming outside influences as an exception to the potential for high levels of achievement (Collins, 2001; Erkens & Twadell, 2012; Dweck, 2016; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Muhammad & Cruz, 2019).

Covey's second habit ascertained leaders should develop a vision and allow their values to guide them in achieving that vision. This Habit two titled "Begin with the End in Mind" focuses on developing self-awareness to allow individuals to shape their lives through clear goals and action steps all guided by what is at the center of their life. Covey also noted that being

principle centered will guide individuals to align actions with values (Covey, 1989). Kotter (2014) recognized the importance of this alignment in his discussion of creation of a sense of urgency where a common commitment both intellectually and emotionally creates forward momentum within the learning organization. Senge (1990) corroborated this in his third discipline focus on shared vision creating commitments through common goals.

The third Habit outlined by Covey recognized the importance of prioritizing based on importance rather than urgency. Habit three noted as "Put First Things First" is an expansion of Habit two and focuses on execution of daily priorities allowing achievement of the "end in mind" vision. Covey discussed categorizing activities based on urgency and importance by breaking them into four quadrants. Quadrant I are the highest urgency most important issues such as crises, projects with deadlines, and newly arising but significant problems. A focus on quadrant I leads to stress and burnout. This can be combated through transformational and distributed leadership which build the leadership capacity of others in the learning organization, improving overall school culture and positively influencing school initiatives (Elmore & Institute, 2000; Harris, 2005; Spillane, 2006; Kotter, 2014) Collaborative commitment to school improvement can allow staff and students to share the work that can lead to too much time in Quadrant I thus allowing all stakeholders to spend additional time in Quadrant II. Quadrant II includes those items that are highly important but do not bring a sense of urgency with them. Continuous improvement planning, developing relationships with others, and seeking out new opportunities to support the organization through data analysis, collaboration, and research on best practices are identified by many researchers as imperative to the improvement of academic achievement (Bass & Avolio, 1994; Elmore, 2000; Bolman & Deal, 2008; Bailey & Jakicic,

2012; Kotter, 2014; Buffum; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Mattos, & Malone, 2018) and are aspects of Quadrant II.

Quadrant III are the less important yet urgent activities such as interruptions, some phone calls or visits, some meetings, etc. The items in Quadrant III have a place in the day to day work that is done, but do not necessarily have a lasting impact on continuous improvement, lasting change, or development of relationships. Quadrant III activities can detract from the personal connection and relationships which allow people to work as team players who are able to recognize needs in others, and respond accordingly (Goleman, 2005; Kanold, 2019). Relationships and the development of a positive and collaborative culture are key components to the success of an organization focused on transformational and distributed leadership (Bass, 1985; Manby, 2012; Fullan, 2001, 2015). Quadrant IV focuses on the activities that are neither urgent nor important to the change we are trying to effect. Quadrant IV includes busywork and things that waste time ineffectually, but also includes activities that are pleasant and enjoyable such as exercise, time away with family and friends, meditation, etc. These activities have a place in reducing burnout and creating balance, but in order to affect change, Quadrant IV is not where Covey suggested residing in order to accomplish the Habit of Put First Things First (Covey, 1989).

The first three Habits identified by Covey are considered the private victory where an individual transitions from dependence to independence and begins to focus on the items that can truly affect change by allowing individuals to take full responsibility for their own decisions and actions, set goals and carry out those goals creating personal effectiveness. Many researchers pointed to the importance of metacognition and individual goal setting in establishing and maintaining high levels of student achievement (Bransford, 1999; Marzano & Pickering, 2011;

Hattie, 2012). This is also an important component of social emotional learning, identified by an individual's ability to manage their own emotions, set goals and establish action steps towards achieving those goals (CASEL, 2019) Covey's next four Habits transition from independence to interdependence allowing individuals to truly trust themselves and others through relationship building, communication, and collaboration. These habits embody the root of transformational leadership which focuses on the relationship between leaders and followers (Burns, 1978; Bass, 1985; Leithwood, Harris, & Hopkins, 2008; Simsek, 2013).

The fourth of Covey's Habits focused on creating solutions and outcomes that are mutually beneficial providing support and satisfaction to each party involved. This fourth Habit known as "Think Win-Win ascertains that win-win situations allow individuals to benefit from being open to understanding the various perspectives and outcomes involved in a situation in order to develop outcomes without agendas or manipulation. With strong character and interpersonal relationships through understanding and seeking win-win opportunities, individuals become more proactive, resulting in stronger influences in effecting change (Covey, 1989; Fullan, 2001).

Covey's fifth Habit focused on the skill of empathic listening, changing our paradigm away from listening with the intent to reply, and towards the intent to fully understand what the other party is communicating. Habit five identified as "Seek First to Understand, Then to be Understood" relays the importance of empathic listening as a character trait grounded in trusting and open relationships. The second portion of this Habit then details the importance of communicating to be understood. In bringing both parts of this habit together, the ability to clearly communicate individual ideas, with a full understanding of the perspective of others involved, credibility, understanding, collaboration, and trust can be achieved (Covey, 2008).

Opportunities for systematic change and improvement can occur in a setting where team members ask genuine questions to seek clarification, share their individual views and other pertinent information (Schwarz, 2013).

Habit six of Covey's 7 Habits "Synergize" spoke to individuals who operate under the paradigms and principles laid out in Habits one through five. Through synergy, collaboration and creativity can flow openly through a symbiotic relationship developed among the parties involved. Synergy is the strengthening of individuals as they come together in relationships based on trust, mutual respect, cooperation, and interdependence, all of which lead to systematic improvement (Bass & Avolio, 1994; Elmore, 2000; Bailey & Jakicic, 2012; Schwarz, 2013; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016). Covey describes this as the ability to pull together towards a common vision resulting in a transformation based on valuing differences among all parties, realizing the strengths of individuals and encouraging courageous interdependence resulting in creativity that can create monumental change (Covey, 2008). Synergy is the center of transformational and distributed leadership.

Covey's seventh Habit surrounds the other six Habits because it focused on self-renewal and rejuvenation. Identified as "Sharpen the Saw", the seventh Habit speaks to the four dimensions which create balance of self. The first of these dimensions in the physical dimension which focuses on physical well-being through regular exercise, proper nutrition, and sufficient rest and relaxation. The second dimension is the spiritual dimension focusing on the value systems that guide our ethics and actions. The third dimension focuses on renewal of mental health and includes activities like journaling, reading, and engaging in enriching life experiences. The final dimension is the social emotional dimension which focuses on the importance of engagement in meaningful relationships with others including seeking a deep understanding of

others as well as taking part in activities that provide fulfillment through helping others. Goleman (2005) agreed, in his discussion of the importance of balancing interpersonal abilities including personal connections and insight into others' feelings and attitudes with one's own needs and feelings. Covey and others indicate the importance of being an inspiration and encouraging others to find their leadership abilities to reach their full potential and achieve continuous improvement (Bass & Avolio, 1994; Covey, 2008; Hargreaves & Shirley, 2009).

Covey's transition from dependence to independence to interdependence through changes in paradigms embodied the fundamental understanding of transformational leadership and distributed leadership. The 7 Habits identified by Covey allow individuals, groups and entire organizations to focus on the aspects of character, leadership, common vision, goal setting, relationship building and collaboration that are all key components of distributed leadership (Elmore, 2000; Thornton, Usinger, & Sanchez, 2019). Alignment between the practices and behaviors outlined by Covey (1989) and the responsibilities outlined by the definition of social emotional learning (CASEL, 2019), education in the 7 Habits provides the opportunity for students to develop the skills and behaviors necessary to increase their capacity to build self-efficacy and intrinsic motivation. Covey's work with the 7 Habits of Highly Effective People is further expanded to incorporate distributed leadership to the student level with the implementation of The Leader in Me, the foundational program distributing leadership to students.

Distributing Leadership in Schools to Students through the 7 Habits

Engaging students in the many aspects of school change in an effort to develop student commitment to their own educational improvement as well as that of the educational system as a whole is the heart of distributing leadership to students (Fletcher, 2008). The distribution of

leadership to students, students owning their own learning, setting goals, and working to achieve those goals strongly influence overall student achievement (Marzano, Waters, & McNulty, 2005; Covey, 2008; Hattie, 2012). Covey's work with The Leader in Me explored the impact metacognition, self-efficacy and owning one's learning has not only on academic achievement, but also on overall character and behavior. Self-efficacy is defined as one's belief in their own ability to make learning happen. Development of student self-efficacy significantly impacts overall student achievement (Marzano, Waters & McNulty, 2005; Hattie, 2012). This metacognitive work combined with a growth mindset allows students to set individual goals and create action steps towards achieving those goals (Bransford, 2000; Dweck, 2008; Covey, 2008,). It is the collective responsibility of the learning organization to provide opportunities for students to explore their own self-efficacy to allow them to feel competent, connected and motivated to put increased effort into their learning (Hart, 2019). In a school where leadership is transformational, continuous improvement is facilitated through working with a collaborative mission and vision, communication, cooperation and relationships leading to systematic data analysis, reflection, planning, and goal-setting. Transformational leaders know the importance of leadership distributed to staff to facilitate implementation of the goals identified through transformational leadership. Further distributing leadership to students to incorporate metacognition, self-efficacy, and goal setting where it impacts student learning on the most direct level enhances learning (Goldman & Pellegrino, 2015). This work from transformational leadership to leadership distributed to staff then to leadership distributed to students directly impacts teaching and learning.

In 2008, Stephen Covey wrote his first book aligned to developing leadership habits in students. Based on his seminal 1989 work The 7 Habits of Highly Effective People, The Leader

in Me (2008) outlines transformational leadership that distributes leadership not only to staff, but then to students. Covey presented The Leader in Me as a transformational schoolwide system with the goal of developing the emotional and social intelligence of children through the development of traits which allow individuals to manage their emotions, set goals, and develop skills that allow them to work collaboratively with others (2008). A system certified through the Collaborative for Academic, Social, and Emotion Learning (CASEL), The Leader in Me provides opportunities for students to develop a broad range of character traits and leadership habits that allow them to develop skills necessary to reach high levels of academic and social emotional learning including high levels of self-efficacy, increased confidence, intrinsic motivation, and the ability to maintain self-dependence. The work of Bransford, Marzano, and Hattie aligns with the work of Covey and his incorporation of student leadership and the positive impact student leadership and goal setting has on overall student achievement.

The Leader in Me, a concept developed by Muriel Summers and expanded through the Franklin-Covey Institute, is explained to be a ubiquitous approach, embedded throughout the culture of a school. Implementation of The Leader in Me therefore relies heavily upon a system of transformational and distributed leadership where a system of mutual accountability and a strong sense of purpose unite a collaborative team around a common mission and vision (Burns, 1978; Bass, 1985; Senge, 1990; DuFour, Elmore, 2000; Bolman & Deal, 2008; DuFour, & Eaker, 2008; Shein, 2010; Hattie, 2012; Fullan, 2015). Upon initial implementation of Leader in Me concepts, trainers explain that it is imperative that staff first learn to live the habits prior to making them part of the school culture. This addresses Elmore's identification of the problem of scale by discouraging only changes in individuals and partial units within the larger school system and encouraging systematic change across the entire school (Elmore, 2000). Pink (2009)

stated high levels of performance and achievement occur when individuals unite around a higher purpose. It is believed that if school staff embraces the components and tenants of Leader in Me, the success of the implementation with students will be greater than if simply implementing as another program to be followed (Franklin Covey, n.d.). As staff members are living the habits, they will naturally transfer those practices to students and implementation will be more organic and holistic (Franklin Covey, n.d.). Once implementation of Leader in Me begins, it is touted to be a whole-school transformation model, similar to the operating system of a computer. Through the multi-year transformation process, schools are encouraged to move slowly and implement each piece with fidelity. When implemented with fidelity, Leader in Me is said to produce a decrease in disciplinary concerns, increased attendance and academic achievement, and increased engagement by all stakeholders (Franklin Covey, 2018).

The Leader in Me was based on three fundamental beliefs that govern the processes and actions embedded in the model. First is the belief that all individuals have the capacity to be a leader in their own lives. This belief does away with a top-down model of leadership with defined positions of leaders and followers and instead implements a model of shared leadership which allows individuals of all ages to build upon their own strengths and motivations. This allows for Covey's view of leadership, that leadership is a choice, not a position, to take root and permeate the organization. Similar to the work of many researchers on distributed leadership, through this model, students are empowered to see their potential and feel empowered to try new things and aim to reach their full capabilities (Burns, 1978; Bass, 1985; Senge, 1990; Elmore, 2000; Bolman & Deal, 2008; Covey, 2008; DuFour, DuFour, & Eaker, 2008; Shein, 2010; Hattie, 2012; Fullan, 2015).

The second fundamental belief of The Leader in Me is that the habits identified in The 7 Habits of Highly Effective People pertain to all regardless of age, race, class, gender, or disability (Covey, 2008). This belief points to students utilizing these habits to improve overall achievement and when this is done on a systemic level, correlates directly with student success. In order to achieve this level of school transformation, full integration of the habits into the culture of the school is an expectation.

The third fundamental belief of The Leader in Me is in the inside-out impact as a result of implementation of the 7 Habits. This is the belief that through implementation of these practices within the school itself, the practices implemented will ripple out to the community of stakeholders involved in the school and surrounding community. Kotter (2014) identifies this principal of developing a guiding coalition to achieve a common goal, and enlisting many people to drive and facilitate the change. This speaks to the power of collective efficacy where all stakeholders believe they have the ability to make a difference aligned to a common goal (Donohoo, Hattie, & Eells, 2018).When people "communicate others' worth and potential so clearly they are forced to see it in themselves, they then inspire others to see the same of themselves" (Covey, 2008).

Implementation of The Leader in Me in an on-going process that focuses on systemic change leading to effective school improvement (Franklin Covey Education, n.d.). The Leader in Me Process is typically implemented in a systematic process that evolves to align culture, academics, and leadership over a multi-year period. Through this process, leadership, the 7 Habits, student goal-setting and student-led academics are all aspects distributed first to staff and then to students. In the initial stages of Leader in Me implementation, Franklin Covey focuses on the development of site leadership and staff. Leaders are encouraged to focus on improving their

Circle of Influence to affect change in the organization as a whole (Franklin Covey Education, n.d.). Transformational and distributed leadership are enacted as a common vision is developed and followers become mobilized and empowered by this influence, growing to become morally inspired with intense purpose and value becoming leaders of their own while charging towards a unified purpose (Burns, 1978). Prior to whole school implementation, staff are encouraged to study and embrace the 7 Habits, learning authentically to model and live the habits while shifting paradigms to allow for sustained change.

The impact of students owning their own learning has been demonstrated through the work of Bransford (1999), Marzano (2007), and Hattie (2012). Stephen Covey's focus on The Leader in Me works to utilize not only Covey's research on the 7 Habits of Highly Effective People, but also research into goal-setting and metacognition to create a process that allows leadership to be distributed directly to students. Leader in Me is designed to provide students with opportunities to develop character through social emotional learning which allows individuals to develop and apply self-efficacy, metacognition, collaborative and relationship building abilities, and strong problem-solving skills. Like many researchers, Covey believed that implementation of skills such as forward thinking, goal-setting, alignment of plans to achievement of goals, collaboration, and overall self-efficacy lead to high levels of achievement (Bransford, 1999; Marzano, 2007; Covey, 2008; Hattie, 2012). Conclusions can be drawn that Covey's processes lead to continuous improvement and gains in overall student achievement, but there is limited research on the direct impact of distribution of student leadership to student academic achievement.

Summary

The call for school reform has guided how schools do business since 1965. Beginning with the Elementary and Secondary Education Act (ESEA), followed by No Child Left Behind (NCLB), and most recently the transition to the Every Student Succeeds Act (ESSA), schools across the country have looked for ways to positively impacting teaching and learning in an effort to maintain high levels of academic achievement. In addition, the development of social emotional skills, character, collaboration, critical thinking, and creativity are also at the forefront of the drive for academic excellence (Griffith & Slade, 2018). Transformational leadership whereby leaders utilize shared vision, innovative problem solving, intentional change, shared leadership, and high levels of accountability, is one way school leaders attempt to facilitate systematic improvement and lasting change (Bass, 1985; Leithwood, 1994; Bass & Avolio, 1994; Bolman & Deal, 2008). School leaders cannot implement all aspects of transformational leadership without support and shared leadership within their learning organization (Thornton, Usinger, & Sanchez, 2019). Distributed leadership allows for comprehensive improvement as a result of intentional and systematic action shared among individuals with a wide range of expertise (Elmore, 2000). Leadership distributed to staff within a learning organization has allowed for the sharing of instructional practices, learning opportunities, data-driven decision making, and mutual accountability aligned to the clear mission and vision set forth through transformational leadership (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015).

Many researchers identify distributed leadership characteristics of self-efficacy, high expectations, and metacognition as frameworks for increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour,

DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016). Stephen Covey aligned the development of these leadership habits first with The Seven Habits of Highly Effective People (1989) and then to the distribution of leadership to students through implementation of The Leader in Me (2008). Implementation of The Leader in Me focuses on systematic change through transformational leadership, leadership distributed to staff, and leadership distributed to students. Through the implementation of The Leader in Me, staff and students focus on social emotional learning, self-efficacy, high expectations, and metacognition (Covey, 2008). Although researchers identify these skills and practices as necessary for high levels of student achievement, little research has been done to analyze the distribution of leadership, leadership skills, and accountability for learning to students. This study will focus on filling the gap in research on distribution of leadership to students and student academic achievement through an analysis of the difference in student academic achievement through implementation of leadership distributed to students through The Leader in Me process.

Chapter Three includes an overview of the methodology utilized to conduct the study. Chapter Four contains an overview of the results of the study as described in Chapter Three. Chapter Five provides a summary of the study and recommendations for further study aligned to the outcome of this study and associated topics.

METHODOLOGY

Introduction

Schools are held accountable for the development of all students. While federal mandates hold schools accountable for the academic achievement and career readiness of their students, there are additional accountability factors at play. Social-emotional growth, character development, 21st century learning and leadership are all necessary in the development of the whole child. With the emphasis on accountability and school reform, it is important to ensure schools are implementing programs and systems that not only meet our goals of developing the whole child, incorporating 21st-century skills and developing students with strong character. Schools are challenged with the task of how to accomplish development of these skills while still preparing students for standardized testing emphasized in states across the nation. In order to rise to this challenge, programs such as Leader in Me, which distributes leadership to students, have been implemented in schools nationwide. The program claims that the study of leadership and the 7 Habits helps prepare our students to develop the social emotional skills necessary to reach high levels of academic achievement while developing skills necessary to be successful outside of the classroom (Franklin Covey Education, 2019).

This study looked at the difference between achievement scores in math and English Language Arts (ELA) for schools who distribute leadership to students and achievement scores in math and ELA for schools who do not distribute leadership to students. This study related to the theory of transformational leadership and the extension of distributed leadership to students, looking at the difference distributed leadership makes on student achievement. Implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual

accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). The researcher examined the public data available on the Missouri Department of Elementary and Secondary Education's (DESE) website to determine percentages of students who achieved proficient and advanced status.

Distributed leadership combined with a shared mission and vision creates a system of collaborative work towards a common goal. Relevance is a meaningful caveat of student engagement and achievement, specifically student feelings of connection and engagement in activities that align to student interests whether addressing curriculum, leadership, or extracurricular activities. If students find their role or involvement to be meaningful, they are more likely to experience success and increased involvement (Fletcher, 2008; Burgess & Houf, 2017). Fletcher goes on to identify "meaningful student involvement as the process of engaging students as partner in every facet of school change for the purpose of strengthening their commitment to education, community, and democracy" (Fletcher, 2008). The Leader in Me is one such system of distribution of leadership whereby students are provided the opportunity to feel connected and engaged in their learning community. It is important to note that the Leader in Me is a multi-step system of distributed leadership and goal setting. Not only is leadership and goal setting distributed amongst students, but also amongst staff. All stakeholders are united around a group mission statement while also living true to personal mission statements and the overall focus of the 7 Habits (Covey, 1998; Covey, 2008).

In the state of Missouri, the Missouri Assessment Program (MAP) is the current standardized method of measuring academic achievement. This study determined if there is a statistically significant difference between MAP proficient and advanced percentages for fourth grade students in the state of Missouri in schools that distribute leadership to students through

implementation of The Leader in Me and schools that do not use a system of distribution of leadership to students. This chapter will include the purpose of the study, research questions, null hypothesis, selection sampling, research setting, research design, procedures, instrumentation and data analysis.

Purpose of the Study

The purpose of this causal comparative study was to test the theory of distribution of leadership to students to find the differences between schools who do not implement a system of leadership distributed to students and schools who do implement a system of leadership distributed to students to percentages of proficient and advanced achievement on the MAP test controlling for assessment method by utilizing the MAP test as the assessment tool and only including public elementary schools who participate in the MAP for fourth grade students in the state of Missouri. The independent variable is distribution of leadership to students through implementation of The Leader in Me, a system of distributed leadership outlined by Stephen Covey in partnership with the Franklin Covey Education Institute (Covey, 2008; Franklin Covey, n.d.). The dependent variable is the fourth grade MAP test which utilizes standardized testing in the areas of mathematics and ELA to determine proficiency levels aligned to scale scores for individual students resulting in schools receiving an overall percentage of students who have achieved proficiency levels of below basic, basic, proficient, and advanced (DESE, 2019). This study focused on the percentage of students scoring proficient and advanced for public elementary schools in the state of Missouri as reported by DESE.

Academic achievement of fourth grade students as measured by percentage of proficient and advanced percentages on the MAP test during the 2017-2018 school year were utilized. The fourth grade MAP test utilizes standardized testing in the areas of mathematics and English

language arts (ELA) to determine proficiency levels aligned to scale scores for individual students resulting in schools receiving an overall percentage of students who have achieved proficiency levels of below basic, basic, proficient, and advanced (DESE, 2019). This study focused on the percentage of students scoring proficient and advanced when looking at student achievement and the differences between schools who implement The Leader in Me and schools who do not implement The Leader in Me.

To answer the call for school reform, school leaders rely on strong implementation of leadership practices that positively impact teaching and learning, thereby leading to high levels of student achievement. The theoretical framework of this research begins with a focus on transformational leadership whereby leaders utilize shared vision, innovative problem solving, intentional change, shared leadership, and high levels of accountability (Burns, 1978; Bass, 1985; Leithwood, 1994; Bass & Avolio, 1994; Bolman & Deal, 2008). Implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). Further, the development of social emotional skills, character, collaboration, critical thinking, and creativity are also at the forefront of the drive for academic excellence (Griffith & Slade, 2018). Distributed leadership allows for comprehensive improvement as a result of intentional and systematic action shared among individuals with a wide range of expertise (Elmore, 2000). Many researchers identify distributed leadership characteristics of self-efficacy, high expectations, and metacognition as frameworks for increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016).

Stephen Covey aligned the development of these characteristics in students through implementation of The Leader in Me (2008). This study seeks to analyze student academic achievement after implementation of leadership distributed to students with The Leader in Me process.

Research Questions

The following research questions guided this study:

1. What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
2. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
3. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
4. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

5. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
6. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
7. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
8. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypotheses

In an effort to answer the aforementioned research questions, the following hypotheses were investigated:

$H_0$1: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of

implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of In an effort to answer the aforementioned research questions, the following hypotheses were investigated:

$H_0$1: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year of** implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There will be no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There will be no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Selection Sampling

The population for this study included elementary schools in the state of Missouri who serve fourth grade students who participate in the MAP test. The state of Missouri includes 518 districts with an elementary population including 1,228 elementary schools serving students between grades pre-K through 6 (DESE, 2019). Geographic regions in Missouri include rural, urban and suburban districts. There are approximately one hundred elementary schools in the state of Missouri who are in various stages of implementation of The Leader in Me (Franklin

Covey, 2018). To determine the sample of schools who were not implementing The Leader in Me, probability sampling which provided the researcher with the opportunity to specify the chance by which members of the defined population would be selected (Gay, Mills, & Airasian, 2009). A random sampling method was utilized to ensure that all members of the elementary schools in the state of Missouri who were not in any stage of implementation of The Leader in Me had an equal chance of being selected for this analysis (Gay, Mills, & Airasian, 2009). In order to achieve a medium effect size of 0.5 with alpha=.05 and a power of 0.8, the sample size needs to be a minimum of 102 (McDaniel, 2016). As a result of the small number of schools in various stages of implementation of Leader in Me the researcher was unable to achieve the minimum sample size of 102. In order to determine the population of schools included in the random sample, schools that were implementing The Leader in Me were placed in one group as the independent variable of schools that utilize a system of leadership distributed to students. They were removed from the population of public elementary schools in the state of Missouri that include attendance of fourth grade students. Computer aided random sampling was utilized for the remaining population of schools in the state of Missouri that include attendance of fourth grade students and are not implementing a system of leadership distributed to students. A simple random sample was selected utilizing a random number table. To create the sample, the researcher numbered the full population of elementary schools in the state of Missouri who serve students in fourth grade 1 through 757 as that is the full population of schools in the state of Missouri who serve students in grade four and participate in the MAP test. A sample size of 20 schools was utilized to match the number of schools in various stages of implementing The Leader in Me. A starting point on the table was randomly selected and the participants were read

down the table. The researcher then selected the first 20 numbers whose last three digits were between 0 and 20 to make up the sample size for the purposes of this research (Crossman, 2019).

Charter, private, and parochial schools were excluded from this study by the researcher due to elimination of state-issued standardized testing in those schools. The participants in this study included public elementary schools in the state of Missouri. For the purpose of this study, student achievement scores in grade four were examined. Ex Post Facto data found on the DESE website was the source of percentages of proficient and advanced scores as indicated by the MAP test administered in April and May of 2017. The researcher chose fourth grade due to the fact that this is the second year students are assessed by the MAP so students have experience with this type of academic testing and assessment percentages are less likely to be impacted by lack of prior exposure to standardized testing. Furthermore, The Leader in Me is implemented in more elementary schools than middle schools, allowing the researcher to have adequate sample size for data analysis.

The participants used for this study were chosen by the researcher from the public schools listed by the Missouri Department of Elementary and Secondary Education and Franklin-Covey Education. The researcher analyzed data disaggregated by demographics reported to DESE by school districts and included socio-economic status, enrollment, and location combined with years of implementation of The Leader in Me. Data was obtained through public information sources as listed on the Missouri Department of Elementary and Secondary Education website and The Leader in Me website hosted by Franklin Covey Education.

Research Setting

The state of Missouri includes 518 districts with an elementary population including 1,228 elementary schools serving students between grades pre-K through 6. Geographic regions

in Missouri include rural, urban and suburban districts (DESE, 2019). The research was done using data from approximately 100 public elementary schools in the state of Missouri who serve grade 4 and are at various stages of implementation of The Leader in Me and 20 public elementary schools in the state of Missouri who serve students in grade 4 and are not implementing The Leader in Me. Implementation of The Leader in Me is an on-going process that focuses on systemic change leading to effective school improvement (Franklin Covey Education, 2019). The Leader in Me Process is typically implemented in a systematic process that evolves to align culture, academics, and leadership over a multi-year period. Through this process, leadership, the 7 Habits, student goal-setting and student-led academics are all aspects distributed first to staff and then to students. In the initial stages of Leader in Me implementation, Franklin Covey focuses on the development of site leadership and staff. Leaders are encouraged to focus on improving their Circle of Influence to affect change in the organization as a whole (Franklin Covey Education, n.d.). Transformational and distributed leadership are enacted as a common vision is developed and followers become mobilized and empowered by this influence, growing to become morally inspired with intense purpose and value becoming leaders of their own while charging towards a unified purpose (Burns, 1978). Prior to whole school implementation, staff are encouraged to study and embrace the 7 Habits, learning authentically to model and live the habits while shifting paradigms to allow for sustained change.

For the purposes of this study, participant data was obtained from the Missouri Department of Elementary and Secondary Education (DESE) website. Post ex facto data from the MAP test during the 2017-2018 school year was analyzed. The MAP includes assessments given statewide in grades three through eight. These assessments meet statutory requirements set forth by state and federal government. The purpose of the assessment is to determine student

progress toward mastery of Missouri Learning Standards as outlined by DESE (DESE, 2018). In addition to academic proficiency, the schools included in this research were further disaggregated by enrollment, socio-economic status, and location.

Research Design

A quantitative causal comparative research study was used to collect data to determine the difference between academic achievement of students in a system of leadership distributed to students versus academic achievement in a system where leadership is not distributed to students. Causal-comparative research seeks to determine the cause for differences that may exist within a group of individuals (Gay, Mills, & Airasian, 2009). In order to conduct this type of research, the researcher utilized data collected from the Missouri Department of Elementary and Secondary Education (DESE) utilizing assessment data from a sample population of fourth grade Missouri Assessment Program (MAP) proficient and advanced percentages for the 2017-2018 school year. The research conducted in the study utilized nonexperimental data that was ex post facto therefore the researcher was not the one that implemented the assessments and the data was collected after the fact as the researcher is trying to determine differences in situations and achievement scores that have already occurred (Gay, Mills, & Airasian, 2009). The most recent scores available on the DESE website at the time of data collection include data from the 2017-2018.

The independent variables in the study included schools who are not implementing The Leader in Me and schools who are at various stages of implementation of The Leader in Me. The dependent variable in this study is percentage of proficient and advanced students for the elementary schools included in the sample. This study utilized ELA and mathematics achievement of fourth grade students in public schools in the state of Missouri. The MAP

includes assessments given statewide in grades three through eight. These assessments meet statutory requirements set forth by state and federal government. The purpose of the assessment is to determine student progress toward mastery of Missouri Learning Standards as outlined by DESE (DESE, 2018). The researcher utilized data from fourth grade assessments due to the fact that fourth grade is the second year students are assessed by the MAP which allows students have experience with this type of academic testing and assessment percentages are therefore not impacted by lack of prior exposure to standardized testing. Furthermore, The Leader in Me is implemented in more elementary schools than middle schools, allowing the researcher to have adequate sample size for data analysis. The ELA assessment for students in grade four required approximately 3-5 hours and included multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. The assessment for grade four also includes a written response which is scored utilizing a 10-point rubric evaluated by human readers who have been trained in the expectations for proficiency (DESE, 2018). The mathematics assessment also includes multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. In addition, the mathematics assessment includes a performance event which allows students to demonstrate high-order thinking to analyze real-world problem. The performance event includes hand-scored responses as well as machine-scored responses (DESE, 2018). All grade-level assessments result in an individual student scale score which translates to a proficiency level of below basic, basic, proficiency, or advanced. Individual schools are then provided with a percentage of students who performed in each of the proficiency levels. The researcher utilized proficiency and advanced percentages for this research. In addition to overall percentages in the category of proficient and advanced across the entire school population for schools in the state of

Missouri, the researcher disaggregated by enrollment, free and reduced lunch percentage, and location in both mathematics and English language arts. The schools included in this research were disaggregated by enrollment, socio-economic status, and location. The state of Missouri includes 512 districts with an elementary population including 1,228 elementary schools serving students between grades pre-K through 6. Geographic regions in Missouri include rural, urban and suburban districts. Demographics are reported by school districts to DESE throughout the year.

The researcher utilized The Leader in Me website to determine schools that were implementing The Leader in Me. Schools are identified as implementing Leader in Me if they are receiving training through a partnership with Franklin Covey Education. Through implementation of Leader in Me, schools participate in ongoing learning opportunities while facilitating leadership to staff and students schoolwide, teaching The 7 Habits explicitly and effectively while modeling the components of those Habits, partnering with families, sharing leadership through a common culture, mission, and vision, identifying and tracking goals and progress towards those goals, students leading their own learning through needs assessment, goal setting, and data tracking, and a collaborative environment evident in trusting relationship, high level of engagement by all stakeholders, and reflective planning (Franklin Covey, 2018). Once individual schools have participated in this programming for approximately four years and have met the criteria outlined by Franklin Covey, they are eligible to apply for Lighthouse certification. As a result of this certification, the researcher determined the grouping of years four and beyond.

Procedures

In compliance with the Southwest Baptist University guidelines regarding the protection of human participants, the researcher submitted a request for review to the Research Review Board (RRB) for approval to conduct ex-post-facto data collection for approximately 120 elementary schools who serve fourth grade students in the state of Missouri. The request to the RRB included a request for approval to study achievement data as indicated on the MAP test and segregated by non-implementation or year of implementation of The Leader in Me. From the Leader in Me website through the Franklin-Covey Institute, the researcher obtained a list of Leader in Me schools across the state of Missouri. The researcher further requested by email to representatives of Franklin Covey Education, identification of the number of years of implementation of Leader in Me for each participating school. The researcher directly contacted schools for which the information was not available or provided to determine the number of years into implementation at the time of the 2017-2018 MAP assessment. The researcher then removed participating Leader in Me schools from the list of schools in the state of Missouri who serve students in fourth grade and participate in the MAP test then utilized random sampling to identify schools across the state of Missouri who were not implementing The Leader in Me and would be utilized in the analysis of data. Once these lists were compiled, data from the 2017 MAP test for each school was acquired from the Missouri Department of Elementary and Secondary Education website. Data included the percentage of students in fourth grade in elementary schools in the state of Missouri who achieved proficient and advanced in mathematics and proficient and advanced ELA was collected.

Instrumentation

The researcher used publicly available data on the Missouri Department of Elementary and Secondary Education (DESE) website. Ex Post Facto data including percentages of fourth grade students in public schools in the state of Missouri scoring proficient and advanced on the ELA and mathematics MAP test was collected and analyzed. The MAP includes assessments given statewide in grades three through eight. These assessments meet statutory requirements set forth by state and federal government. The purpose of the assessment is to determine student progress toward mastery of Missouri Learning Standards as outlined by DESE (DESE, 2018). The researcher utilized data from fourth grade assessments due to the fact that fourth grade is the second year students are assessed by the MAP which allows students have experience with this type of academic testing and assessment percentages are therefore not impacted by lack of prior exposure to standardized testing. Furthermore, The Leader in Me is implemented in more elementary schools than middle schools, allowing the researcher to have adequate sample size for data analysis. The ELA assessment for students in grade four required approximately 3-5 hours and included multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. The assessment for grade 4 also includes a written response which is scored utilizing a 10-point rubric evaluated by human readers who have been trained in the expectations for proficiency (DESE, 2018). The mathematics assessment also includes multiple item types including selected response items, short-text items, technology-enhanced items, all of which are machine-scored. In addition, the mathematics assessment includes a performance event which allows students to demonstrate high-order thinking to analyze real-world problem. The performance event includes hand-scored responses as well as machine-scored responses (DESE, 2018). All grade-level assessments result

in an individual student scale score which translates to a proficiency level of below basic, basic, proficient, or advanced. Individual schools are then provided with a percentage of students who performed in each of the proficiency levels. The researcher utilized overall percentages in the category of proficient and advanced across the entire school population for schools in the state of Missouri.

The MAP assessment is a requirement for all fourth grade public school students in the state of Missouri. Fourth grade public school students from schools in various stages of implementation of the Leader in Me were compared with schools who were not implementing the Leader in Me. Use of the database as an instrument for data collection was appropriate as it included all data available from public elementary schools across the state of Missouri as verified for validity by DESE. The researcher used student achievement as reported by percentages proficient and advanced fourth grade students on the English, language arts and mathematics assessments through the MAP.

The researcher utilized The Leader in Me website to determine schools that were implementing The Leader in Me. Schools are identified as implementing Leader in Me if they are receiving training through a partnership with Franklin Covey Education. Through implementation of Leader in Me, schools participate in ongoing learning opportunities while facilitating leadership to staff and students schoolwide, teaching The 7 Habits explicitly and effectively while modeling the components of those Habits, partnering with families, sharing leadership through a common culture, mission, and vision, identifying and tracking goals and progress towards those goals, students leading their own learning through needs assessment, goals setting, and data tracking, and a collaborative environment evident in trusting relationship, high level of engagement by all stakeholders, and reflective planning (Franklin Covey, 2018).

Once individual schools have participated in this programming for approximately four years and have met the criteria outlined by Franklin Covey, they are eligible to apply for Lighthouse certification. As a result of this certification, the researcher determined the grouping of years four and beyond. Private schools, charter schools and parochial schools were not utilized in this study due to the fact that they are not required to administer the MAP.

Data Analysis

The researcher used percentages of fourth grade students in the state of Missouri who achieved proficient and advanced on the MAP test in both ELA and mathematics during the 2017-2018 school year to analyze the identified research questions with the SPSS statistics tool. The researcher utilized these data statistics in addition to enrollment, free and reduced lunch percentage, and location to report the means and standard deviations of achievement percentages for schools that implement a system of leadership distributed to students and schools that do not implement a system of leadership distributed to students. Collection of data was achieved through publicly available district and school data on the DESE website. Excel was utilized to filter data for achievement percentages on the 2017-2018 MAP assessment in 4^{th} grade ELA and mathematics. The independent-samples *t*-test was utilized to compare the means in percentages of proficient and advanced achievement in schools who are not implementing The Leader in Me and schools who are at various stages of implementation of The Leader in Me. The independent-samples *t*-test assisted the researcher in determining the reliability of the data by determining the variance both between the schools who are and are not implementing The Leader in Me and within those groups (Gay, Mills, & Airasian, 2009). Assumptions that need to be met in order for validity in results through SPSS statistics include measurement of the dependent variable on a continuous scale (i.e. percentage proficient and advanced), independent variable includes two

groups independent of each other (for the purpose of this study, implementation of Leader in Me and non-implementation of Leader in Me), independence of observations (in this study, schools cannot be placed in both the implementation and the non-implementation group), there should be no significant outliers, there should be a normal distribution of assessment percentages, and a homogeneity of variances should be present, meaning there should be an equal spread of scores across the means (Independent t-test using SPSS Statistics, 2018). The researcher assumed the null hypothesis were correct until evidence to reject or fail to reject the null hypothesis was found. The probability of finding a difference between groups if a difference does exist was represented by a power of 0.8. A standard alpha level of .05 means the researcher may reject the null hypothesis if the difference in means occurred in less than 5% of the population (Mayr, Erdfelder, Buchner, & Faul, 2001; McDaniel, 2016). After running the independent samples *t*-test for each of the eight research questions, the researcher reported the differences in the means of the independent variables including schools that utilize a system to distribute leadership to students and schools that do not utilize a system to distribute leadership to students as aligned to student proficient and advanced percentages on the MAP test during the 2017-2018 school year. Cohen's *d* was calculated to determine the standardized difference between the means. Interpretation of Cohen's *d* can be cautiously interpreted using the effect size of 0.2 as a small effect, 0.5 as a medium effect, and 0.8 as a large effect (Cohen's d: Definitions, examples, formulas, 2019).

Summary

The purpose of this causal comparative study was to look at the difference between schools in Missouri that implement The Leader in Me as a process of distributing leadership to students and schools that do not implement The Leader in Me (Covey, 2008) as a process of

distributing leadership to students. Academic achievement of fourth grade students as measured by percentage of proficient and advanced percentages on the MAP test during the 2017-2018 school year was utilized. The comparison groups included schools who distributed leadership to students through implementation of The Leader in Me and schools who did not distribute leadership to students through implementation of The Leader in Me. This chapter included the purpose of the study, research questions, null hypothesis, selection sampling, research setting, research design, procedures, instrumentation and data analysis. Chapter Four contains an overview of the results of the study as described in Chapter Three. Chapter Five will provide a summary of the study and recommendations for further study aligned to the outcome of this study and associated topics.

DATA ANALYSIS AND FINDINGS

Introduction

As schools across America seek to rise to the call for school reform, educators and educational leaders seek ways to increase student achievement while also focusing on skills such as citizenship, collaboration, critical thinking, and creativity in an effort to meet the needs of the 21st Century learner (Tharamuraj, Krishnan, & Perumal, 2018). Character education and social-emotional learning provide opportunities to develop the moral and psychological characteristics that provide ethical direction and prosocial behaviors that allow for high levels of empathy, teamwork collaboration and initiative (Goleman, 2005; Elias, Parker, Kash, & Dunkelbelau, 2007; Berkowitz, Bier, & McCauley, 2016; McGrath, 2018,). Transformational leadership focused on shared vision, innovative problem solving, intentional change, shared leadership, and high level of accountability (Burns, 1978, Bass, 1985, Leithwood, 1994, Bass & Avolio, 1994; Bolman & Deal, 2008) can lead to the development of character, leadership, collaboration, and critical thinking, while positively influencing teaching and learning to increase academic achievement. Implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000, DuFour, R., DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). Many researchers further identify distributed leadership characteristics of self-efficacy, high expectations, and metacognition as frameworks for increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour, DuFour, Eaker, Many & Mattos, 2006, 2010, 2016). Programs that distribute leadership to students emphasize the development of these distributed leadership characteristics, but little quantitative research has

been done to determine the alignment of leadership distribution to students to increases in academic achievement on high-stakes testing.

The purpose of this causal comparative study was to test the theory of distribution of leadership to students to find the differences in achievement scores between schools who do not implement a system of leadership distributed to students and schools who do implement a system of leadership distributed to students. The Missouri Assessment Program (MAP) was utilized as the assessment tool to determine percentages of proficient and advanced achievement for fourth grade students in public elementary schools in the state of Missouri. The independent variable was distribution of leadership to students through implementation of The Leader in Me, a system of distributed leadership outlined by Stephen Covey in partnership with the Franklin Covey Education Institute (Covey, 2008; Franklin Covey, n.d.). The dependent variable was the fourth grade MAP test which utilizes standardized testing in the areas of mathematics and ELA to determine proficiency levels aligned to scale scores for individual students resulting in schools receiving an overall percentage of students who have achieved proficiency levels of below basic, basic, proficient, and advanced (DESE, 2019). This study focused on proficient and advanced percentages for public elementary schools in the state of Missouri as reported by DESE.

In Chapter One, the researcher provided an overview of the history of school reform mandates leading schools to look for ways to improve student achievement while meeting the needs of the 21st century learner. Chapter Two reviewed literature surrounding the call for educational reform leading to implementation of transformational leadership. In Chapter Three, the researcher detailed the methodology utilized to conduct this study. Chapter Four will provide an analysis of the data aligned to the identified research questions.

Research Questions

The following research questions guided this study:

1. What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
2. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
3. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
4. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
5. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

6. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
7. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
8. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypotheses

In an effort to answer the aforementioned research questions, the following hypotheses were investigated:

$H_0$1: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of

implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Each research question and related null hypothesis were investigated through analysis of quantitative Ex Post Facto data using the SPSS statistics tool. The independent-samples *t*-test was utilized to compare the means in percentages of proficient and advanced achievement in schools who are not implementing The Leader in Me and schools who are at various stages of implementation of The Leader in Me. Cohen's *d* was calculated to determine the standardized difference between the means. Interpretation of Cohen's *d* can be cautiously interpreted using the effect size of 0.2 as a small effect, 0.5 as a medium effect, and 0.8 as a large effect (Cohen's d: Definitions, examples, formulas, 2019).

Data Analysis and Findings

The researcher used percentages of fourth grade students in the state of Missouri who achieved proficient and advanced on the MAP test in both ELA and mathematics during the 2017-2018 school year to analyze the identified research questions with the SPSS statistics tool. The researcher utilized these data statistics in addition to enrollment, free and reduced lunch percentage, and location to report the means and standard deviations of achievement percentages for schools that implement a system of leadership distributed to students and schools that do not implement a system of leadership distributed to students. Collection of data was achieved through publicly available district and school data on the DESE website. Excel was utilized to filter data for achievement percentages on the 2017-2018 MAP assessment in 4th grade ELA and mathematics. The independent-samples *t*-test was utilized to compare the means in percentages of proficient and advanced achievement in schools who are not implementing The Leader in Me and schools who are at various stages of implementation of The Leader in Me. The independent-

samples *t*-test assisted the researcher in determining the reliability of the data by determining the variance both between the schools who were and were not implementing The Leader in Me and the variance within those groups (Gay, Mills, & Airasian, 2009). There were several assumptions that needed to be met in order for validity in results through SPSS statistics. Measurement of the dependent variable must occur on a continuous scale (i.e. percentage proficient and advanced). The independent variable includes two groups independent of each other. For the purpose of this study, implementation and Leader in Me and non-implementation of Leader in Me served as the two groups independent of each other. Independence of observations must be maintained. In this study, schools were not placed in both the implementation and the non-implementation group. There should be no significant outliers and there should be a normal distribution of assessment percentages. Finally, a homogeneity of variances should be present, meaning there should be an equal spread of scores across the means (Independent t-test using SPSS Statistics, 2018). The researcher accepted the null hypotheses until evidence to reject or fail to reject the null hypothesis was found. The probability of finding a difference between groups if a difference does exist was represented by a power of 0.8. A standard alpha level of .05 means the researcher may reject the null hypothesis if the difference in means occurred in less than 5% of the population (Mayr, Erdfelder, Buchner, & Faul, 2001; McDaniel, 2016). After running the independent samples *t*-test for each of the eight research questions, the researcher reported the differences in the means of the independent variables including schools that utilize a system to distribute leadership to students and schools that do not utilize a system to distribute leadership to students as aligned to student proficient and advanced percentages on the MAP test during the 2017-2018 school year. Cohen's *d* was calculated to determine the standardized difference between the means. Interpretation of Cohen's *d* can be cautiously interpreted using the effect size

of 0.2 as a small effect, 0.5 as a medium effect, and 0.8 as a large effect (Cohen's d: Definitions, examples, formulas, 2019).

Samples

In order to determine the population of schools included in the random sample, schools that were implementing The Leader in Me were placed in one group as the independent variable of schools that utilize a system of leadership distributed to students. They were removed from the population of public elementary schools in the state of Missouri that include attendance of fourth grade students. Random sampling was utilized for the remaining population of schools in the state of Missouri that included attendance of fourth grade students and are not implementing a system of leadership distributed to students. A simple random sample was selected utilizing a random number table. To create the sample, the researcher numbered the full population of elementary schools in the state of Missouri who serve students in fourth grade 1 through 757 as that is the full population of schools in the state of Missouri who serve students in grade four and participate in the MAP test. A sample size of 20 schools was utilized to match the number of schools that are in various stages of implementing The Leader in Me. A starting point on the table was randomly selected and the participants were read down the table. The researcher then selected the first 20 numbers whose last three digits were between 0 and 20 to make up the sample size for the purposes of this research (Crossman, 2019).

Demographics

The researcher used post ex facto data publicly available on the DESE website to collect data for public school districts in the state of Missouri. Ninety-five school districts were used in the study. Schools districts that were identified as charter, parochial, and private and schools who did not serve students in grade four were not used in this study. Only Missouri public schools

who served students in fourth grade and participated in the MAP were used in this study. Data extracted from DESE's open access database were then put into SPSS and analyzed to determine the difference between proficient and advanced academic performance as determined by the MAP in schools who do implement Leader in Me as a system of leadership distributed to students and schools who do not implement Leader in Me.

Data Cleaning

School districts identified as charter, parochial, and private schools and schools who did not serve students in grade four or did not otherwise participate in the MAP were not used in this study. The researcher then removed Leader in Me schools from the list of schools in the state of Missouri who serve students in fourth grade and participate in the MAP test then utilized random sampling to identify schools across the state of Missouri who were not implementing The Leader in Me and would be utilized in the analysis of data. Once these lists were compiled, data from the 2017 MAP test for each school was acquired from the Missouri Department of Elementary and Secondary Education website. Data included the percentage of students in fourth grade in elementary schools in the state of Missouri who achieved proficient and advanced in mathematics and proficient and advanced English language arts was collected.

Findings

Research Question 1

What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 1

$H_0$1: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 1 presents the MAP ELA mean and standard deviation for one year of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 1

MAP ELA One Year of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP ELA	No implementation	20	53.38	18.65	4.17
	Year one of implementation	21	55.42	11.79	2.57

The proficient and advanced percentages for ELA scores in year 1 of implementation (M = 55.42, SD = 11.79) were greater than the proficient and advanced percentages for ELA scores with no implementation (M = 53.38, SD = 18.65).

Table 2 presents an analysis of the data presented to answer research question 1. There were 20 schools that did not implement a program of leadership distributed to students and 21 schools in their first year of implementation of programs that distribute leadership to students. An independent samples t-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP ELA.

Table 2

Independent Samples t-test MAP ELA Year 1 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	6.80	0.01	-0.42	39.00	0.67	-2.05	4.85	-11.85	7.76
Equal variances not assumed			-0.42	31.83	0.68	-2.05	4.90	-12.03	7.93

Levene's test for equality of variances tested the assumption that the variances in achievement scores within the two groups were approximately equal. Levene's test with a significance of less than .05 indicated there was not equal variance within the group and the differences between the variances of the two groups were statistically significant. Levene's test with a significance of greater than .05 indicated there was no statistically significance difference between the variances of the two groups. Assumptions for outliers of data were addressed through analysis of a boxplot which demonstrated few outliers when the assumption for normality was met. Shapiro-Wilk's test for assumption of distribution of achievement scores within each group assumed data were normally distributed along a given line. A significance less than .05 indicated the distribution of data was statistically significant in difference of distribution where a significance of greater than .05 indicated normal distribution of data points.

The assumption of homogeneity of variances was violated by the data collected for research question 1, as assessed by Levene's test for equality of variances ($p = .01$). There were

no outliers in the data, as assessed by inspection of a boxplot, and engagement scores for schools that were in year one of implementation and schools that were not implementing a program of leadership distributed to student are normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). The proficient and advanced percentages for ELA scores in year 1 of implementation ($M = 55.42$, $SD = 11.79$) were greater than the proficient and advanced percentages for ELA scores with no implementation ($M = 53.38$, $SD = 18.65$) by a difference of $M = -2.05$, 95% CI [-12.03, 7.93], $t(31.83) = -.42$, $p = .68$ which is not statistically significant. A small effect size existed with Cohen's $d = (55.42-53.38)/15.6 = 0.13$. Thus, the null hypothesis ($H_0 1$) failed to be rejected.

Research Question 2

What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 2

$H_0 2$: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 3 presents the mathematics mean and standard deviation for one year of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 3

MAP Math One Year of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP math	No implementation	20	49.72	18.98	4.24
	Year one of implementation	21	52.86	13.39	2.92

The proficient and advanced percentages for math scores in year 1 of implementation (M = 52.86, SD = 13.39) were greater than the proficient and advanced percentages for ELA scores with no implementation (M = 49.72, SD = 18.98).

Table 4 presents an analysis of the data presented to answer research question 2. There were 20 schools that did not implement a program of leadership distributed to students and 21 schools that were in their first year of implementation of programs that distribute leadership to students. An independent samples *t*-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP math test.

Table 4

Independent Samples t-test MAP Mathematics Year 1 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	3.76	0.06	-0.62	39.00	0.54	-3.14	5.11	-13.47	7.19
Equal variances not assumed			-0.61	34.02	0.55	-3.14	5.15	-13.61	7.33

There was one outlier in the data as assessed by inspection of a boxplot. The outlier in the data is represented by the smallest district size of all schools in year one of implementation and represented the only rural school in the group of 21 schools that were in their first year of implementation of Leader in Me. Proficient and advanced percentages for schools that were in year one of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .06$). The proficient and advanced percentages for math scores in year 1 of implementation ($M = 52.86$, $SD = 13.39$) were greater than the proficient and advanced percentages for ELA scores with no implementation ($M = 49.72$, $SD = 18.98$) by a difference of $M = -3.14$, 95% CI [-13.61, 7.33], $t(34.02) = -.61$, $p = .55$ which is not statistically significant. A small effect size existed with Cohen's $d = (52.86-49.72)/16.42 = 0.19$. Thus, the null hypothesis ($H_0 2$) failed to be rejected.

Research Question 3

What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 3

$H_0 3$: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 5 presents the MAP ELA mean and standard deviation for two years of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 5

MAP ELA Two Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP ELA	No implementation	20	53.38	18.65	4.17
	Year two of implementation	13	56.18	12.55	3.48

The proficient and advanced percentages for ELA scores in year 2 of implementation (M = 56.18, SD = 12.55) were greater than the proficient and advanced percentages for ELA scores with no implementation (M = 53.38, SD = 18.65).

Table 6 presents an analysis of the data presented to answer research question 3. There were 20 schools that did not implement a program of leadership distributed to students and 13 schools that were in their second year of implementation of programs that distribute leadership to students. An independent samples *t*-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP ELA test.

Table 6

Independent Samples t-test MAP ELA Year 2 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	6.07	0.02	-0.48	31.00	0.64	-2.81	5.90	-14.84	9.22
Equal variances not assumed			-0.52	30.93	0.61	-2.81	5.43	-13.89	8.27

The assumption of homogeneity of variances was violated by the data collected for research question 3, as assessed by Levene's test for equality of variances ($p = .02$). There were few outliers in the data, as assessed by inspection of a boxplot. The outlier with achievement percentages that were significantly higher than the mean scores for the year two implementation group was represented by the school with the lowest free and reduced lunch population in the schools in year two of implementation. The outlier with achievement scores that were significantly lower than the mean scores for the year two implementation group was represented by the school with the highest free and reduced lunch population in the schools in year two of implementation. Proficient and advanced percentages for schools that were in year two of implementation and schools that were not implementing a program of leadership distributed to student are normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). The proficient and advanced percentages for ELA scores in year 2 of implementation ($M = 56.18$, $SD = 12.55$) were greater than the proficient and advanced percentages for ELA scores with no implementation (*M*

= 53.38, *SD* = 18.65) by a difference of *M* = -2.81, 95% CI [-13.89, 8.27], *t*(30.93) = -.52, *p* = .61 which is not statistically significant. A small effect size existed with Cohen's *d* = (56.18-53.38)/15.90 = 0.18. Thus, the null hypothesis ($H_0$3) failed to be rejected.

Research Question 4

What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 4

$H_0$4: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 7 presents the mathematics mean and standard deviation for one year of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 7

MAP Math Two Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP math	No implementation	20	49.72	18.98	4.24
	Year two of implementation	13	48.76	14.15	3.93

The proficient and advanced percentages for math scores in year 2 of implementation (M = 48.76, SD = 14.15) were less than the proficient and advanced percentages for ELA scores with no implementation (M = 49.72, SD = 18.98).

Table 8 presents an analysis of the data presented to answer research question 4. There were 20 schools that did not implement a program of leadership distributed to students and 13 schools that were in their second year of implementation of programs that distribute leadership to students. An independent samples t-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP math test.

Table 8

Independent Samples t-test MAP Math Year 2 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.88	0.18	0.16	31.00	0.88	0.96	6.15	-11.59	13.51
Equal variances not assumed			0.17	30.30	0.87	0.96	5.78	-10.84	12.76

There were no outliers in the data as assessed by inspection of a boxplot. Proficient and advanced percentages for schools that were in year two of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .18$). The proficient and advanced percentages for

math scores in year 2 of implementation (M = 48.76, SD = 14.15) were lower than the proficient and advanced percentages for math scores with no implementation (M = 49.72, SD = 18.98) by a difference of M = 0.96, 95% CI [-11.59], t(31.00) = .16, p = .88 which is not statistically significant. A small effect size existed with Cohen's d = (48.76-49.72)/16.74 = 0.06. Thus, the null hypothesis ($H_0$4) failed to be rejected.

Research Question 5

What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 5

$H_0$5: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 9 presents the MAP ELA mean and standard deviation for three years of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 9

MAP ELA Three Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP ELA	No implementation	20	53.38	18.65	4.17
	Year three of implementation	13	62.44	16.38	4.54

The proficient and advanced percentages for ELA scores in year 3 of implementation (M = 62.44, SD = 16.38) were greater than the proficient and advanced percentages for ELA scores with no implementation (M = 53.38, SD = 18.65).

Table 10 presents an analysis of the data presented to answer research question 5. There were 20 schools that did not implement a program of leadership distributed to students and 13 schools that were in their third year of implementation of programs that distribute leadership to students. An independent samples t-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP ELA test.

Table 10

Independent Samples t-test MAP ELA Year 3 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	0.97	0.33	-1.43	31.00	0.16	-9.06	6.34	-22.00	3.87
Equal variances not assumed			-1.47	28.13	0.15	-9.06	6.17	-21.69	3.56

There was one outlier in the data as assessed by inspection of a boxplot. The proficient and advanced percentage for the outlier were lower than the mean of all schools who were in year three of implementation. This school was the largest of the suburban schools in the group. Free and reduced lunch population fell within three percentage points of the mean of free and reduced lunch in the year three group. Proficient and advanced percentages for schools that were in year

three of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .33$). The proficient and advanced percentages for ELA scores in year 3 of implementation ($M = 62.44$, $SD = 16.38$) were higher than the proficient and advanced percentages for ELA scores with no implementation ($M = 53.38$, $SD = 18.65$) by a difference of $M = 6.34$, 95% CI [-22.00, 3.87], $t(31.00) = -1.43$, $p = .16$ which is not statistically significant. A medium effect size existed with Cohen's $d = (62.44\text{-}53.38)/17.55 = 0.52$. Thus, the null hypothesis ($H_0 5$) failed to be rejected.

Research Question 6

What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 6

$H_0 6$: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 11 presents the mathematics mean and standard deviation for three years of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 11

MAP Math Three Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP math	No implementation	20	49.72	18.98	4.24
	Year three of implementation	13	59.31	15.11	4.19

The proficient and advanced percentages for math scores in year 3 of implementation (M = 59.31, SD = 15.11) were greater than the proficient and advanced percentages for ELA scores with no implementation (M = 49.72, SD = 18.98).

Table 12 presents an analysis of the data presented to answer research question 6. There were 20 schools that did not implement a program of leadership distributed to students and 13 schools that were in their third year of implementation of programs that distribute leadership to students. An independent samples *t*-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP math test.

Table 12

Independent Samples t-test MAP Math Year 3 of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.25	0.27	-1.53	31.00	0.14	-9.59	6.26	-22.36	3.19
Equal variances not assumed			-1.61	29.58	0.12	-9.59	5.96	-21.77	2.60

There were no outliers in the data as assessed by inspection of a boxplot. Proficient and advanced percentages for schools that were in year three of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .27$). The proficient and advanced percentages for math scores in year three of implementation ($M = 59.31$, $SD = 15.11$) were higher than the proficient and advanced percentages for math scores with no implementation ($M = 49.72$, $SD = 18.98$) by a difference of $M = -9.59$, 95% CI [-22.36, 3.19], $t(31.00) = -1.53$, $p = .14$ which is not statistically significant. A medium effect size existed with Cohen's $d = (59.31-49.72)/17.15 = 0.56$. Thus, the null hypothesis ($H_0 6$) failed to be rejected.

Research Questions 7

What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 7

$H_0 7$: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 13 presents the MAP ELA mean and standard deviation for four or more years of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 13

MAP ELA Four or More Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP ELA	No implementation	20	53.38	18.65	4.17
	Year four of implementation	28	58.21	14.68	2.77

The proficient and advanced percentages for ELA scores in four or more years of implementation ($M = 58.21$, $SD = 14.68$) were greater than the proficient and advanced percentages for ELA scores with no implementation ($M = 53.38$, $SD = 18.65$).

Table 14 presents an analysis of the data presented to answer research question 7. There were 20 schools that did not implement a program of leadership distributed to students and 28 schools that were in their fourth and beyond year of implementation of programs that distribute leadership to students. An independent samples *t*-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP ELA test.

Table 14

Independent Samples t-test MAP ELA Year 4+ of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	3.15	0.08	-1.00	46.00	0.32	-4.84	4.81	-14.52	4.85
Equal variances not assumed			-0.97	34.75	0.34	-4.84	5.01	-15.01	5.34

There was one outlier in the data as assessed by inspection of a boxplot. The outlier was the smallest district and one of three rural schools of the year four and beyond group. Proficient and advanced percentages for schools that were in year four and beyond of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .08$). The proficient and advanced percentages for ELA scores in year four and beyond of implementation ($M = 58.21$, $SD = 14.68$) were higher than the proficient and advanced percentages for ELA scores with no implementation ($M = 53.38$, $SD = 18.65$) by a difference of $M = -4.84$, 95% CI [-14.52, 4.85], $t(46.00) = -1.00$, $p = .32$ which is not statistically significant. A small effect size existed with Cohen's $d = (58.21-53.38)/16.78 = 0.29$. Thus, the null hypothesis ($H_0 6$) failed to be rejected.

Research Question 8

What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypothesis 8

$H_0 8$: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Table 15 presents the mathematics mean and standard deviation for four or more years of implementation of a system of leadership distributed to students and no implementation of leadership distributed to students.

Table 15

MAP Math Four or More Years of Implementation

Group		*N*	Mean	Std. Deviation	Std. Error Mean
MAP math	No implementation	20	49.72	18.98	4.24
	Year four of implementation	28	55.88	14.20	2.68

The proficient and advanced percentages for math scores in years four or more of implementation ($M = 55.88$, $SD = 14.20$) were greater than the proficient and advanced percentages for ELA scores with no implementation ($M = 49.72$, $SD = 18.98$).

Table 16 presents an analysis of the data presented to answer research question 8. There were 20 schools that did not implement a program of leadership distributed to students and 28 schools that were in their fourth and beyond year of implementation of programs that distribute leadership to students. An independent samples *t*-test was run to determine if there were differences in proficient and advanced percentages on the 4th grade MAP math test.

Table 16

Independent Samples t-test MAP Math Year 4+ of Implementation and No Implementation

	Levene's Test for Equality of Variances								
	F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	3.44	0.07	-1.29	46.00	0.20	-6.16	4.79	-15.79	3.47
Equal variances not assumed			-1.23	33.47	0.23	-6.16	5.02	-16.37	4.05

There were no outliers in the data as assessed by inspection of a boxplot. Proficient and advanced percentages for schools that were in year four and beyond of implementation and schools that were not implementing a program of leadership distributed to students were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .07$). The proficient and advanced percentages for math scores in year four and beyond of implementation ($M = 55.88$, $SD = 14.20$) were higher than the proficient and advanced percentages for math scores with no implementation ($M = 49.72$, $SD = 18.98$) by a difference of $M = -6.16$, 95% CI [-15.79, 3.47], $t(46.00) = -1.29$, $p = .20$ which is not statistically significant. A small effect size existed with Cohen's $d = (55.88)/49.72 = 0.37$. Thus, the null hypothesis ($H_0 6$) failed to be rejected.

Summary

The statistical analysis and findings of this study exploring the differences in 4th grade MAP ELA and mathematics proficient and advanced percentages in 2017-2018 between schools

in years one through 4+ of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri were presented in this chapter. Eight null hypotheses were tested and failed to be rejected:

$H_0$1: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their third year of

implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Despite the analysis indicating no statistically significant differences in the data between the variables, analysis identified differences that should be noted. In seven of the eight tested hypotheses, the mean proficient and advanced percentages were higher in the schools implementing leadership distributed to students. In year two of implementation, the mean of the schools that did implement leadership distributed to students was 0.96 lower than the mean of the schools that did not implement leadership distributed to students. Year three of implementation of leadership distributed to students showed the greatest difference in means with ELA mean at 6.34 higher and math at 9.59 higher. Effect size was also the largest in year three of implementation with ELA effect size of .52 and math effect size of

.56. The outliers for research question two indicated difference in deviation from the mean according to free and reduced lunch percentage and the outliers for questions one, three, and four indicated a difference in deviation from the mean according to location and student enrollment.

This chapter included the research questions, hypotheses, null hypotheses, data analysis and findings, sampling, demographics of the study, data cleaning methodology, summary and analysis of the findings. Based on the information collected through data analysis in Chapter Four, Chapter Five presents a summary of the causal comparative study and includes conclusions and recommendations aligned to the review of literature from Chapter Two.

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Schools across the United States are looking for ways to continuously improve in an effort to address the call for school reform outlined in federal mandates including the most recent reform act addressed by the Every Student Succeeds Act (ESSA). In addressing the requirements for school reform, educators and educational leaders look for ways to increase student achievement while also focusing on addressing the skills including collaboration, character, citizenship and creativity as well as character education and social emotional learning, all skills which create a well-rounded students with the skills necessary to succeed outside of the classroom (Tharamuraj, Krishnan, & Perumal, 2018). Teamwork, collaboration, initiative, strong ethical direction, and prosocial behaviors are characteristics developed through character education and social-emotional learning (Goleman, 2005, Elias, Parker, Kash, & Dunkelbelau, 2007; Berkowitz, Bier, & McCauley, 2016; McGrath, 2018).

Development of the 21st Century skills of character, leadership, collaboration, creativity, and critical thinking can be accomplished through transformational leadership which focuses on shared vision, innovative problem solving, systematic change, shared leadership, and mutual accountability leading to continuous improvement in teaching and learning (Burns, 1978, Bass, 1985, Leithwood, 1994, Bass & Avolio, 1994; Bolman & Deal, 2008). Many leaders see the opportunity to distribute leadership to all staff members, allowing for the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision called for by transformational leadership (Senge, 1990; Elmore, 2000, DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). The further distribution of leadership to students facilitates the development of self-efficacy, high

expectations, and metacognition, skills that many researchers identify as frameworks for increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour, DuFour, Eaker, Many & Mattos, 2006, 2010, 2016). While there are programs that distribute leadership directly to students as a way to facilitate social emotional growth, character education, self-efficacy and metacognition, little quantitative research has been done to determine the differences between academic achievement scores of schools that distribute leadership to students and scores of schools that do not distribute leadership to students in order to determine the alignment of student leadership and academic achievement of high-stakes testing required by school reform mandates.

This causal comparative study tested the theory of the distribution of leadership to students to determine the differences in achievement scores on mandated standardized testing in the state of Missouri between schools who do not implement a system of leadership distributed to students and schools who do implement a system of leadership distributed to students. The researcher utilized the Missouri Assessment Program (MAP) which includes standardized testing in the areas of mathematics and English Language Arts as the dependent variable to determine the percentages of proficient and advanced achievement for fourth grade students in public elementary schools in the state of Missouri. Leader in Me, a system of distributed leadership outlined by Stephen Covey in partnership with the Franklin Covey Education Institute (Covey, 2008; Franklin Covey, n.d.), served as the independent variable of distribution of leadership to students.

In Chapter One, the researcher provided and overview of the history of school reform mandates leading schools to look for ways to improve student achievement while meeting the needs of the 21st century learner. Chapter Two reviewed literature surrounding the call for

educational reform leading to implementation of transformational leadership. In Chapter Three, the researcher detailed the methodology utilized to conduct this study. Chapter Four provided an analysis of the data aligned to the identified research questions. Chapter Five presents the conclusions identified through analysis of the data and makes recommendations for further research aligned to the topics of leadership distributed to students and academic achievement.

Research Questions

The following research questions guided this study:

1. What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
2. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
3. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
4. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

5. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
6. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
7. What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?
8. What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Null Hypotheses

In an effort to answer the aforementioned research questions, the following hypotheses were investigated:

$H_0$1: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$2: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their first year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$3: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$4: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their second year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$5: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$6: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their third year of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$7: There is no statistically significant difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of

implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

$H_0$8: There is no statistically significant difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their fourth year and beyond of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri.

Summary of Methods

The researcher utilized ex post facto data gathered from the Missouri Department of Elementary and Secondary Education website to determine the percentages of fourth grade students in the state of Missouri who scored proficient and advanced on the MAP test in both ELA and mathematics. Ninety-five school districts were used in the study. Schools districts that were identified as charter, parochial, and private and schools who did not serve students in grade four were not used in this study. Data extracted from DESE's open access database were then put into SPSS and analyzed to determine the difference between proficient and advanced academic performance as determined by the MAP in schools who do implement Leader in Me as a system of leadership distributed to students and schools who do not implement Leader in Me.

Each research question and related null hypothesis were investigated through analysis of quantitative Ex Post Facto data using the SPSS statistics tool. The independent-samples *t*-test was utilized to compare the means in percentages of proficient and advanced achievement in schools who are not implementing The Leader in Me and schools who are at various stages of implementation of The Leader in Me. Cohen's *d* was calculated to determine the standardized difference between the means. Interpretation of Cohen's *d* was cautiously interpreted using the

effect size of 0.2 as a small effect, 0.5 as a medium effect, and 0.8 as a large effect (Cohen's d: Definitions, examples, formulas, 2019).

Summary of Findings

In this summary, the researcher has grouped the research questions according to the number of years of implementation of a system of leadership distributed to students. This allowed the researcher to provide an analysis of the research in alignment to progression through the system of distributed leadership. An independent samples *t*-test was used to determine the difference in each of the following research questions.

Research Question 1: What is the difference in 4th grade MAP English Language Arts (ELA) proficient and advanced percentages in 2017-2018 between schools that are **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Research Question 2: What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **first year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

The researcher used the independent samples *t*-test to analyze data aligned to research questions 1 and 2, both comparing the difference between the means of schools who are in their first year of implementation of leadership distributed to students and schools who are not implementing a system of leadership distributed to students. The data indicated there was not a statistically significant difference in ELA or mathematics proficient and advanced percentages between schools that implement a system of leadership distributed to students and school who do not implement a system of leadership distributed to students; however, in ELA there was a

difference of 2.05 in the means of the two groups with schools that implement a system of leadership distributed to students having a higher mean of 55.42 as opposed to those who do not implement a system of leadership to students with a mean of 53.38. Utilization of Cohen's *d* to determine effect size indicated a small effect size of .13. Analysis of proficient and advanced percentages in mathematics indicated similar findings, with a difference of 3.14 in the means of the two groups with school that implement a system of leadership distributed to students having a higher mean of 52.86 in comparison with those who do not implement a system of leadership distributed to students with a mean of 49.72. Utilization of Cohen's *d* to determine effect size indicated a small effect size of .19. While the results were not considered statistically significant, the higher means of ELA and mathematics proficient and advanced percentages in schools in year one of leadership is distributed to students agreed with the literature surrounding distributed leadership leading the researcher to believe there can be an increase in academic achievement when leadership is distributed throughout the school and further to students.

During the initial year of implementation of leadership to students through Leader in Me, Franklin Covey focuses on the development of site leadership and staff and development of a common mission and vision. Leaders are encouraged to focus on improving their Circle of Influence to affect change in the organization as a whole (Franklin Covey Education, n.d.). Transformational and distributed leadership are enacted as a common vision is developed and followers become mobilized and empowered by this influence, growing to become morally inspired with intense purpose and value becoming leaders of their own while charging towards a unified purpose (Burns, 1978). During this initial year of implementation, students have not yet begun the transition to ownership of their own learning, goal-setting and self-efficacy, therefore larger effect sizes would not be expected in relation to the work of metacognition and the impact

of students owning their own learning as identified by many researchers (Bransford, 1999; Marzano, 2007; Covey, 2008; Hattie, 2012).

Research Question 3: What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Research Question 4:

What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **second year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

The researcher used the independent samples *t*-test to analyze data aligned to research questions 3 and 4, both comparing the difference between the means of schools who are in their second year of implementation of leadership distributed to students and schools who are not implementing a system of leadership distributed to students. Using the independent samples *t*-test, the data indicated there was not a statistically significant difference in ELA or mathematics proficient and advanced percentages between schools that implement a system of leadership distributed to students and school who do not implement a system of leadership distributed to students; however, there in ELA there was a difference of 2.81 in the means of the two groups with schools that implement a system of leadership distributed to students having a higher mean of 56.18 as opposed to those who do not implement a system of leadership to students with a mean of 53.38. Utilization of Cohen's *d* to determine effect size indicated a small effect size of .18. Analysis of proficient and advanced percentages in mathematics indicated findings contrary

to the rest of the study, as this was the only instance where the distribution of leadership to students resulted in a lower mean with a difference of .96 in the means of the two groups. School that implement a system of leadership distributed to students had a lower mean of 48.76 in comparison with those who do not implement a system of leadership distributed to students with a mean of 49.72. Utilization of Cohen's *d* to determine effect size indicated an effect size of -.06. While the results were not considered statistically significant, the higher means of ELA proficient and advanced percentages in schools in their second year of leadership distributed to students agreed with the literature surrounding distributed leadership indicating a possible increase in student achievement within schools where leadership is distributed to students. Results of analysis of mathematics data in year two of leadership distributed to students did not agree with the literature surrounding distribution of leadership to students.

During the second year of implementation of Leader in Me, implementation of the common mission and vision becomes the focus of staff as they continue to incorporate understanding of the 7 Habits and begin to focus on incorporation of school-wide goals. Leadership distribution increases as the learning organization develops social-emotional and character education aligned with sharing of instructional practices, learning opportunities, data-driven decision making, and mutual accountability aligned to the clear mission and vision set forth through transformational leadership (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Covey, 2008; Hattie, 2012; Fullan, 2015). Year two of implementation of leadership distributed to students includes continued focus on the development of character and social-emotional learning to set the stage for development of the skills many researchers indicate lead to higher levels of student achievement. These skills include goal-setting, metacognition, and self-efficacy grounded in a strong ability to develop problem-solving skills, and build

collaborative and mutually beneficial relationships (Bransford, 1999; Marzano, 2007; Covey, 2008; Hattie, 2012). During this second year of distribution of leadership to students, the further development of leadership skills and social-emotional learning aligns directly to the literature on the positive impact of distributed leadership on academic achievement. As a result, while not statistically significant, increases in effect size as seen in ELA proficient and advanced percentages in year two of implementation of distributed leadership would be expected to occur as students begin to take ownership of their own learning. Because distribution of leadership is an on-going process, effect size would be expected to increase as students gain higher levels of self-efficacy and problem-solving skills.

The researcher found the decrease in mathematics scores during year two of implementation to be contrary to the increases in achievement in ELA proficient and advanced percentages in all years of implementation of leadership distributed to students. Increases in academic achievement were also noted in years one, three, and four and beyond in mathematics proficient and advanced percentages in this study. Mathematics scores in year two of implementation were the only instance of data analysis indicating a decrease in proficient and advanced percentages after implementation of leadership distributed to students. This may be a result of the implementation dip whereby a decrease in performance and achievement occurs when encountering implementation of a new skill or understanding (Fullan, 2001).

Research Question 5: What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Research Question 6: What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **third year** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

The researcher used the independent samples *t*-test to analyze data aligned to research questions 5 and 6, both comparing the difference between the means of schools who are in their third year of implementation of leadership distributed to students and schools who are not implementing a system of leadership distributed to students. Using the independent samples *t*-test, the data indicated there was not a statistically significant difference in ELA or mathematics proficient and advanced percentages between schools that implement a system of leadership distributed to students and school who do not implement a system of leadership distributed to students; however, in ELA there was a difference of 6.34 in the means of the two groups with schools that implement a system of leadership distributed to students having a higher mean of 62.44 as opposed to those who do not implement a system of leadership to students with a mean of 53.38. Utilization of Cohen's *d* to determine effect size indicated a medium effect size of .52. Analysis of proficient and advanced percentages in mathematics indicated an even greater difference of 9.59 in the means of the two groups with school that implement a system of leadership distributed to students having a higher mean of 59.31 in comparison with those who do not implement a system of leadership distributed to students with a mean of 49.72. Utilization of Cohen's *d* to determine effect size indicated a medium effect size of .56.

During the third year of implementation of Leader in Me, the focus on alignment to a common mission and vision continues, as does a continued focus on social-emotional learning and school-wide goals. In addition, this stage of implementation focuses strongly on academics

and transferring the ownership of student learning to the students. Through this transition, students increase their creative and critical thinking, self-discipline, collaboration, and relationship building skills and focus on setting their own learning goals and becoming empowered in leading themselves (Franklin Covey, 2018). Students begin to explore their own self-efficacy to allow them to feel competent, connected and motivated to put increased effort into their learning (Hart, 2019). This again aligns to the work of many researchers with a focus on allowing students to engage in metacognitive work combined with a growth mindset which allows students to set individual goals and create action steps towards achieving those goals (Bransford, 2000; Dweck, 2008; Covey, 2008). While the analysis of the data did not indicate a statistically significant difference between the distribution of leadership to students and no distribution of leadership to students a 6.34 difference in the means in ELA and a 9.59 difference in the means in mathematics is growth that educational leaders would celebrate in the quest toward continuous improvement. A medium effect size for both the ELA and mathematics achievement scores is something that should be taken into consideration as creating a difference worth noting. The increase in effect size during year three provides the opportunity to infer leadership distributed to students positively impacts academic achievement. Distributed leadership aids in the development of a clear vision and mission, communication of a clear direction centering on innovation, problem solving, cooperation and influence, motivation and inspiration focused on the fulfillment of values and integrity, and implementation of systematic planning and goal-setting leading to continuous improvement through empowerment, collaboration and teamwork all rooted in relationships and collective efficacy (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty, 2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015; DuFour, DuFour, Eaker, Many, & Mattos, 2006,

2010, 2016; Kannold, 2017; Muhammad & Cruz, 2019). Through distributed leadership, the sharing of instructional practices, learning opportunities, assessment and teaching methods, data-driven decision making, and mutual accountability focused clearly on specific issues related to teaching and learning allow teachers to learn how to systematically improve instruction and, therefore, student achievement (DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012). While the difference was not statistically significant, the difference does provide additional support for the work of Covey and many others who focus on the positive impact metacognition, self-efficacy and owning one's learning has on academic achievement and supports the positive impact of student self-efficacy having a positive impact on overall student achievement (Marzano, Waters & McNulty, 2005; Covey, 2008; Hattie, 2012).

Research Question 7: What is the difference in 4th grade MAP ELA proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

Research Question 8: What is the difference in 4th grade MAP mathematics proficient and advanced percentages in 2017-2018 between schools in their **fourth year and beyond** of implementation of programs that distribute leadership to students and schools that do not implement a program of leadership distributed to students in the state of Missouri?

The researcher used the independent samples *t*-test to analyze data aligned to research questions 7 and 8, both comparing the difference between the means of schools who are in year four or more of implementation of leadership distributed to students and schools who are not implementing a system of leadership distributed to students. Using the independent samples *t*-test, the data indicated there was not a statistically significant difference in ELA or mathematics

proficient and advanced percentages between schools that implement a system of leadership distributed to students and school who do not implement a system of leadership distributed to students; however, in ELA there was a difference of 4.84 in the means of the two groups with schools that implement a system of leadership distributed to students having a higher mean of 58.21 as opposed to those who do not implement a system of leadership to students with a mean of 53.38. Utilization of Cohen's *d* to determine effect size indicated a small effect size of .29. Analysis of proficient and advanced percentages in mathematics indicated an even greater difference of 6.16 in the means of the two groups with school that implement a system of leadership distributed to students having a higher mean of 55.88 in comparison with those who do not implement a system of leadership distributed to students with a mean of 49.72. Utilization of Cohen's *d* to determine effect size indicated a small effect size of .37.

During year four and beyond of implementation of Leader in Me, schools maintain the practices they have implemented over the previous four years. Social-emotional learning, character development, incorporation of the 7 Habits, maintaining an environment of shared leadership, a focus on school-wide and individual goal achievement, student-led achievement and learning and collaborative planning and reflection (Franklin Covey, 2018) are all intertwined to continue the focus on the core practices of distributed leadership and continuous improvement (Bass & Avolio, 1994; Elmore, 2000; Bolman & Deal, 2008; Bailey & Jakicic, 2012; Kotter, 2014; Buffum; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Mattos, & Malone, 2018). While analysis of the data did not demonstrate a statistically significant difference in the means of the academic achievement between the two groups, it is important to again note the mean of the students who achieved proficient and advanced in the schools that distribute leadership to students was higher than the mean of the students who achieved proficient and

advanced in the schools that did not distribute leadership to students, again supporting the work of many researchers who focus on the positive impact distribution of leadership has on academic achievement. Distributed leadership facilitates systematic improvement based on a shared set of norms and cultural beliefs, combined with empowerment of individuals within the organization as a way to systematically improve teaching and learning, thereby increasing academic achievement (Burns, 1978; Bass, 1985; Senge, 1990; Elmore, 2000; DuFour, DuFour, & Eaker, 2008; Bolman & Deal, 2008; Shein, 2010; Hattie, 2012; Fullan, 2015). An important facet of distribution of leadership to students is the incorporation of instruction and development of character and social emotional learning to enable students to overcome obstacles, maintain high levels of motivation, sustain effort, set high expectations, and experience self-efficacy to achieve high levels of academic achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012).

Analysis of Findings

While examining the differences between the proficient and advanced percentages of students in schools who implement a system of leadership distributed to students and schools who do not implement systems of leadership distributed to students, no statistically significant differences were noted. While no statistically significant differences were identified, it is important to recognize the differences in the means in all groups. With the exception of year two of implementation and mathematics achievement, analysis of the data aligned to the other seven research questions and null hypotheses indicated higher means in the achievement scores of schools that did implement a system of leadership distributed to students over achievement scores of schools that did not implement a system of leadership distributed to students. In addition to the differences in means between the two groups, the differences in means increased

as the number of years of implementation increased, until reaching year four and beyond when there was a slight dip in the means in comparison to year three of implementation, but still an increase in the means from year two of implementation. These differences, while not statistically significant, lead the researcher to infer implementation of leadership distributed to students positively impacts student academic achievement. This also indicated the systematic and intentional incorporation of distributed leadership practices in the first three years of implementation has an increasingly positive impact on the means of proficient and advanced percentages of student achievement on standardized tests. While a decrease was noted in years four and beyond, there was still enough of a positive difference in achievement in schools that distribute leadership to students compared to schools that did not distribute leadership to students to allow the researcher to conclude distribution of leadership to students does positively impact student academic achievement. The slight decrease in achievement during year four and beyond in comparison with year three may be a result of a difference in the systematic and intentional implementation. During years one through three, intentional and on-going training in the various aspects of Leader in Me is provided by Franklin Covey. As schools move into the maintenance phases of years four and beyond, training and support is provided but without the same intentional, systematic, and ongoing training that occurs during the initial implementation years. This indicates the importance of continuous improvement and a focus on Kotter's Eight Accelerators including creating a sense of urgency, formation of a guiding coalition of stakeholders who serve as role models of the relentless urgency for change, maintenance and review of a shared vision providing clarity and direction empowering others through training, modeling, and coaching, identifying and celebrating short-term wins as a step to cultivation of lasting change, consolidating gains and producing more change, and institutionalizing new

approaches as the new culture of the organization (Kotter, 1996, 2014). During the maintenance years of Leader in Me, celebration of short-term wins can produce effects which may be able to provide a continued positive trajectory of achievement scores due to the six beneficial effects on transformation of an organization which include providing positive feedback, allowing for adjustments and fine-tuning of vision and the strategies leading to implementation of the vision, undermining the viewpoint of resistors to change, keeping leaders on-board with evidence that the changes identified as necessary are being addressed, and building continued momentum. Maintaining compelling vision at this stage prevents stagnation in change efforts (Kotter, 1996, 2014). Because years four and beyond were grouped into one grouping due to Lighthouse status being achieved most often during year four of implementation of Leader in Me, the research could be enhanced through differentiation of years four, five, six, etc. to see if greater conclusions can be drawn based on total number of years of implementation in years four and beyond.

The researcher found the decrease in mathematics scores during year two of implementation to be contrary to the increases in achievement in ELA proficient and advanced percentages in all years of implementation of leadership distributed to students. Increases in academic achievement were also noted in years one, three, and four and beyond in mathematics proficient and advanced percentages in this study indicating again the positive impact distribution of leadership to students has on academic achievement. In the collaborative environment created through distribution of leadership, members of the learning organization engage in professional learning opportunities with their peers to merge understanding to positively impact organization and instructional practices leading to continuous improvement. (Senge, 1990; Bailey & Jakicic, 2012; Erkins & Twadwell, 2012; Simpson, 2014; Kotter, 2014;

Fullan, 2015; DuFour, DuFour, Eaker, et. al 2016). Increased achievement scores in Leader in Me schools can be indicative of the positive impact of continuous improvement on academic achievement. Furthermore, Hattie (2012) discusses attributes students carry that can impact learning. These attributes include self-efficacy, self-motivation, and self-goals. Hattie pointed to the importance of distribution of learning and leadership from the teacher to the student which allows students to set goals for, monitor, and see their own learning thereby allowing students to engage in the attributes that benefit them while overcoming the attributes that create gaps in academic achievement (Hattie, 2012). The focus on the 7 Habits of Highly Effective People as taught during implementation of Leader in Me, allows for the student to develop these attributes through an emphasis on being proactive, beginning with the end in mind, putting first things first, seeking first to understand then to be understood, thinking win-win, and synergizing.

Mathematics scores in year two of implementation were the only instance of data analysis indicating a decrease in proficient and advanced percentages after implementation of leadership distributed to students. This may be a result of the implementation dip whereby a decrease in performance and achievement occurs when encountering implementation of a new skill or understanding (Fullan, 2001).

Effect size is another indicator of the difference that may be created by implementation of leadership distributed to students. Analysis of the data, with the exception of year two of implementation and mathematics achievement, indicates the effect size increases through year three after which time the effect size decreases but still remains higher than that of years one and two of implementation. This provides additional support for the need to enhance the research by identifying years four, five, six, etc. to look for greater conclusions but again provides the opportunity to infer distribution of leadership to students can have a positive impact on student

achievement. Bransford (1999) pointed to the strong correlation between student achievement and student control of their own learning goals and progress towards achieving those goals. Implementation of Leader in Me allows students to create self-goals and monitor progress towards those goals.

The higher means in proficient and advanced percentages in schools that distribute leadership to students gives support to the review of literature which indicated development of a clear vision and mission, communication of a clear direction centering on innovation, problem solving, cooperation and influence, motivation and inspiration focused on the fulfillment of values and integrity, and implementation of systematic planning and goal-setting lead to continuous improvement through empowerment, collaboration and teamwork all rooted in relationships and collective efficacy lead to increases in student achievement (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty, 2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015). In addition, Leader in Me is certified through the Collaborative for Academic, Social, and Emotional Learning (CASEL) and research indicated the need for teaching character and social emotional learning to enable students to overcome obstacles, maintain high levels of motivation, sustain effort, set high expectations, and experience self-efficacy to achieve high levels of academic achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012). Finally, many researchers indicated distribution of leadership to students, students owning their own learning, setting goals, and working to achieve those goals strongly influence overall student achievement (Marzano, Waters, & McNulty, 2005; Covey, 2008; Hattie, 2012). As schools progress through implementation of Leader in Me, moving from development of school-wide culture aligned to a shared vision, through distribution of leadership to staff, explicit teaching of the 7 Habits of

Highly Effective People incorporating character and social-emotional learning, then to distribution of leadership to students including engagement in metacognition and goal-setting (Franklin Covey, 2018), continuous improvement leading to increased academic achievement occurs. While the difference is not statistically significant, increases in student achievement were noted in schools that distribute leadership to students.

Conclusions

The statistical analysis of the data yielded differences between academic achievement scores of schools who do not implement a system of leadership distributed to students and schools that do implement a system of leadership distributed to students. While the results were not statistically significant, they are noteworthy and indicated increased academic achievement in schools that implement distribution of leadership to students through development of school-wide culture aligned to a shared vision, through distribution of leadership to staff, explicit teaching of the 7 Habits of Highly Effective People incorporating character and social-emotional learning, then to distribution of leadership to students including engagement in metacognition and goal-setting (Franklin Covey, 2018). With the exception of year two of implementation and mathematics achievement, analysis of the data indicated higher means in the achievement scores of schools that did implement a system of leadership distributed to students over achievement scores of schools that did not implement a system of leadership distributed to students. In addition to the differences in means between the two groups, the differences in means increased as the number of years of implementation increased, indicating that the progression through Leader in Me as a system of continuous improvement leads to some increase in academic achievement until reaching year four and beyond when there was a slight dip in the means in

comparison to year three of implementation, but still an increase in the means from year two of implementation.

Statistical analysis of the effect size further demonstrated the increased percentages of academic achievement occur with progression through the Leader in Me process. Analysis of the data, with the exception of year two of implementation and mathematics achievement, indicated the effect size increases through year three after which time the effect size decreases but still remains higher than that of years one and two of implementation. While the effect size was not statistically significant, the increasing effect of implementation of leadership distributed to students on academic achievement on the MAP test is important to note as it corresponds with the literature on the positive impact of distribution of leadership through systematic processes combined with the work of many researchers on how students learn, including the work of many researchers who indicated the strong connection between student achievement and self-efficacy, motivation, perseverance, and confidence (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012).

A conclusion worth noting is the greatest difference in the means is identified in year three of implementation of leadership distributed to students. This difference leads the researcher to conclude the literature supporting student learning and achievement, most directly how students learn, is positively supported by the achievement scores of schools that implement leadership distributed to students. Leader in Me as a system of leadership distributed to students focuses on the many facets of distributed leadership including development of a common mission and vision, empowerment of staff and students, and the development of strong relationships leading to collective efficacy, collaborative and systematic planning and goal-setting focused on continuous improvement (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty,

2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016; Kannold, 2017; Muhammad & Cruz, 2019). The additional focus on social-emotional learning and school-wide goals in year three indicated the strong connection between student achievement and self-efficacy. In addition, this stage of implementation focuses strongly on academics and transferring the ownership of student learning to the students so they becoming empowered in leading themselves (Franklin Covey, 2018). This allows students to engage in metacognitive work to allow students to set individual goals and create action steps towards achieving those goals (Bransford, 2000; Dweck, 2008; Covey, 2008).

A final conclusion worth identifying is the differences between the means of the two groups in math as opposed to ELA. The mean of the achievement scores in ELA throughout the years of implementation increased between years one, two, and three. Means in achievement scores in mathematics dipped in year two, but increased at a higher rate in year one, year three, and then dipped in year four but still remained higher as opposed to ELA. The researcher noted mathematics incorporates more opportunities to problem solve and apply the skills of critical thinking and creativity in understanding and cognitive engagement in the subject matter. Because Leader in Me focuses on developing the critical thinking and creativity skills identified as necessary for the 21st century learner, the inference can be made that because development of these skills is a focus of Leader in Me, implementation of Leader in Me can facilitate a deeper level of understanding in academic areas where problem solving and critical thinking are imperative to academic achievement.

Professional Implications

The findings of this study further support the importance of leadership distributed not only to staff, but also to students as a way to facilitate continuous improvement and improve academic

achievement. This research, while not statistically significant, indicated possible connections between academic achievement and implementation of systems of leadership distributed to students. Administrators in the field of education can draw conclusions about the positive impact of not only distributing leadership to staff as a way to meet the on-going call for school reform, but also the positive impact of leadership distributed to students as a way to increase academic achievement. Many researchers identified common themes focusing on transformational leadership and affecting change. These themes included development of a clear vision and mission, communication of a clear direction centering on innovation, problem solving, cooperation and influence, motivation and inspiration focused on the fulfillment of values and integrity, and implementation of systematic planning and goal-setting leading to continuous improvement through empowerment, collaboration and teamwork all rooted in relationships and collective efficacy (Senge, 1990; Bass & Avolio, 1994; Marzano, Waters, & McNulty, 2005; Bolman & Deal, 2008; Schein, 2010; Kotter, 1996 & 2014; Fullan, 2001 & 2015).

Transformational leaders who implement distributed leadership allow all members of a school community to share a sense of responsibility and community surrounding systematic problems and needs so all members of the team together can be more insightful in developing a plan for continuous improvement thereby raising the intellectual abilities of the group as a whole (Senge, 1990; Schwarz, 2013; Kannold, 2017; Covey, 1989 and 2019). Distributed leadership further creates systematic improvement based on a shared set of norms and cultural beliefs, combined with empowerment of individuals within the organization as a way to systematically improve teaching and learning (Burns, 1978; Bass, 1985; Senge, 1990; Elmore, 2000; DuFour, DuFour, & Eaker, 2008; Bolman & Deal, 2008; Shein, 2010; Hattie, 2012; Fullan, 2015). School districts focusing on transformational leadership, distributed leadership, character education, and

social-emotional learning can positively impact students learning and achievement through further distribution of leadership to students.

Educators can utilize the conclusions of this study to determine ways to incorporate methods of teaching and learning that will develop character and social emotional health in addition to academic understanding and achievement in all students. Literature surrounding distributed leadership, student character development, and student achievement pointed to the importance of metacognition and individual goal setting in establishing and maintaining high levels of student achievement (Bransford, 1999; Marzano & Pickering, 2011; Hattie, 2012). This is also an important component of social emotional learning, identified by an individual's ability to manage their own emotions, set goals and establish action steps towards achieving those goals (CASEL, 2019). Development of these traits creates continuous improvement in academic achievement, and prepares students for the world beyond the classroom. The findings of this study leads the researcher to think that transformational leadership, whereby school and district leaders focus on the development of a culture of integrity, high expectations and goal setting, encouragement, support, collaborative work towards a motivating and inspiring mission and vision (Bass, 1985) can be accomplished through distributed leadership. Distributed leadership incorporates systematic, continuous improvement leading to high levels of academic achievement brought about by shared influence and building capacity of the individuals to bring about change through collaborative relationships, collective efficacy, empowerment, capacity building, and shared leadership aligned to a common mission and vision (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012) thus meeting the call for increased academic achievement and development of 21st century skills outlined in school reform mandates. In addition, students have the opportunity to develop metacognition and

own their own learning when they are able to determine gaps in their own understanding of instructional concepts. When students are aware of their strengths and opportunities for improvement, and can create goals and action steps to meet goals for their own continuous improvement, students take ownership of their own learning and their learning becomes relevant. Relevance is a meaningful caveat of student engagement and achievement, specifically student feelings of connection and engagement in activities that align to student interests whether addressing curriculum, leadership, or extracurricular activities, if students find their role or involvement to be meaningful, they are more likely to experience success and increased involvement (Fletcher, 2008; Burgess & Houf, 2017). Fletcher goes on to identify "meaningful student involvement as the process of engaging students as partner in every facet of school change for the purpose of strengthening their commitment to education, community, and democracy" (Fletcher, 2008) Engaging students as partners in their education through providing opportunities for students to own their own learning, set goals, and create action steps to achieve goals create students with high levels of self-efficacy that will not only develop character and a well-rounded individual, but will also create opportunities for schools to continuously improve (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012). Hart (2019) says it is the collective responsibility of the learning organization to provide opportunities for students to explore their own self-efficacy to allow them to feel competent, connected, and motivated to put increased effort into their learning. Finding opportunities throughout the school day to allow students to develop self-efficacy can increase student achievement as indicated in the theoretical framework of this research. The distribution of leadership, first to staff then to students, students owning their own learning, setting goals, and

working to achieve those goals strongly influence overall student achievement (Marzano, Waters, & McNulty, 2005; Covey, 2008; Hattie, 2012).

As an administrator in the field of elementary education, and a practitioner of transformational and distributed leadership, the researcher was pleased to see the positive impact on academic achievement with the implementation of leadership distributed to students. The conclusions of this study are valuable to all levels of educators in public schools who are challenged with the task of how to accomplish development of 21st century skills while still preparing students for standardized testing emphasized in states across the nation. Systems of continuous improvement that distribute leadership to staff and students allow us to rise to this challenge, and programs such as Leader in Me which distributes leadership to students can help prepare our students to reach high levels of academic achievement, social and emotional well-being, and to be successful both inside and outside of the classroom.

Recommendations for Future Research

Building on this study, the next phase of research could include more in depth study of free and reduced lunch percentage in relation to schools that implement distribution of leadership to students and schools that do not distribute leadership to students. Outliers in the data analysis indicated low free and reduced lunch percentage correlated with higher than average achievement while high free and reduced lunch percentage correlated with lower than average student achievement. A future study may look at the data not only by distribution of leadership and no distribution of leadership, but further by percentages of free and reduced lunch percentage. Location and overall district size may provide another extension of this research. Outliers again indicated small district size and rural location correlated with lower than average

achievement and also indicated larger size and suburban location presented an outlier with lower than average achievement.

Additionally, expanding the research to other grades within the state of Missouri could increase the knowledge base for the differences that may occur at other grade levels. This study focused on fourth grade achievement on the MAP test. Researchers could also include third, fifth, sixth, seventh, and eighth grades to determine the differences in achievement scores in both groups across a greater span of grades. In addition, the MAP test is administered for science in both fifth and eighth grades. The greater difference in means between ELA and mathematics could be analyzed in comparison with science.

Future studies could also focus on further analysis of differences of implementation in years four, five, six, and beyond. In addition to the differences in means between the two groups, the differences in means increased as the number of years of implementation increased, until reaching year four and beyond when there was a slight dip in the means in comparison to year three of implementation. Because years four and beyond were grouped into one grouping due to lighthouse status being achieved most often during year four of implementation, the research could be enhanced through differentiation of years four, five, six, etc. to see if greater conclusions can be drawn based on total number of years of implementation in years four and beyond.

It would also be interesting to determine the difference between academic achievements of various subgroup populations in the state of Missouri. This analysis did not desegregate data according to various subgroup populations including special education, English language learners, or race/ethnicity. Determination of differences in the achievement of these subgroups

could indicate differences in the impact of distributed leadership to students and subgroup achievement.

Summary

In an effort to address the demands for 21st century skills of collaboration and teamwork, creativity and imagination, critical thinking and problem solving, while also preparing students for standardized testing emphasized by the national call for continuous school improvement and reform, schools across the have looked to various programs and systems to facilitate high levels of academic achievement while also facilitating character and social-emotional growth and understanding in students. Implementation of leadership practices that positively impact teaching and learning, thereby leading to high levels of student achievement can be facilitated through transformational leadership whereby leaders utilize shared vision, innovative problem solving, intentional change, shared leadership, and high levels of accountability (Burns, 1978; Bass, 1985; Leithwood, 1994; Bass and Avolio, 1994; Bolman and Deal, 2008). In order for administrators to accomplish this weighty task, implementation of distributed leadership facilitates transformational leadership through the sharing of instructional practices, learning opportunities, data-driven decision-making, and mutual accountability aligned to the clear mission and vision (Senge, 1990; Elmore, 2000; DuFour, DuFour, Eaker, & Many, 2006; Hattie, 2012; Fullan, 2015). Many researchers identify distributed leadership characteristics of self-efficacy, high expectations, and metacognition as frameworks for increasing student achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012; DuFour, DuFour, Eaker, Many, & Mattos, 2006, 2010, 2016). One such system of continuous improvement is Leader in Me which distributes leadership not only to staff members, but also to students.

Advocates for Leader in Me indicate the study of leadership and the 7 Habits helps prepare our students to reach high levels of academic achievement, social and emotional well-being, and to be successful both inside and outside of the classroom (Franklin Covey Education, 2019). While many advocates for The Leader in Me share their success stories, there is little quantitative research to specifically align implementation of Leader in Me to increases in achievement. This study addressed this gap in literature through analysis of student achievement data to identify differences between proficient and advanced percentages on the MAP test in ELA and mathematics for fourth grade students in the state of Missouri. The researcher compared these achievement percentages between schools who do implement Leader in Me, a system that distributed leadership to students and schools who do not implement Leader in Me.

The results of this study provided quantitative research and data analysis which, while not statistically significant, indicated implementation of leadership distributed to students may have a positive impact on student academic achievement. The findings aligned with previous literature indicating the positive impact of transformational leadership which addresses the instructional needs of a learning organization as well as the cultural needs (Bass & Avolio, 1994; Kotter, 2014, Fullan, 2001 & 2015,) and where leaders lead through example, frame experiences with a positive outlook, communicate strong and hopeful vision, and intentionally motivate through storytelling focusing on the past, present, and future (Bass, 1985; Leithwood, 1994; Bass and Avolio, 1994; Bolman & Deal, 2008; Whitaker, Zoul, Casas, 2017). The findings support the facilitation of transformational leadership through distributed leadership which addresses the complex art of teaching and learning which allows individuals within the learning organization to play to their unique strengths creating systemic improvement aligned to a common and collaborative culture, mission, and vision (Senge, 1990; Muhammad, 2009; Allison, et. al 2011;

Fullan, 2015). Students are then able to become part of the culture of distributed leadership when a focus is placed on more than the academics of teaching and learning. This research indicated the need for teaching character and social emotional learning to enable students to overcome obstacles, maintain high levels of motivation, sustain effort, set high expectations, and experience self-efficacy to achieve high levels of academic achievement (Bransford, 1999; Marzano, Waters, & McNulty, 2005; Marzano & Pickering, 2011; Hattie, 2012). This effort toward distribution of leadership to students, development of character and social-emotional well-being, and the resulting increase in student academic achievement may be supported through implementation of Leader in Me.

Overall, the results of the quantitative data provided by this study were not statistically significant and were therefore inconclusive. The review of literature supporting transformational leadership and distributed leadership, followed by further distribution of leadership to students leads the researcher to conclude that the increase in student achievement may be a result of distribution of leadership to staff and students resulting in a common mission and vision, strong communication and collaboration, strong relationships and high levels of self-efficacy geared towards continuous improvement. In addition, the development of strong character and social-emotional learning leading to high levels of integrity, empowerment, and self-efficacy may result in characteristics that facilitate personal growth and increased motivation, further leading to traits that increase and sustain effort and development of personal goals towards growth in teaching and learning.

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