DEVELOPMENT OF LEADERSHIP RESPONSIBILITIES THROUGH THE ASSISTANT PRINCIPAL POSITION

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DEVELOPMENT OF LEADERSHIP RESPONSIBILITIES THROUGH THE ASSISTANT PRINCIPAL POSITION

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DEVELOPMENT OF LEADERSHIP RESPONSIBILITIES THROUGH THE ASSISTANT PRINCIPAL POSITION

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By

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As an older, non-athletic adult I ran a marathon. Someone asked how I did it and my reply was, “I didn’t know I shouldn’t be able to.” The completion of this degree feels much the same. I was not your typical marathoner and am not your typical doctor, but here I am. Proud. Humbled. Exhausted.

Without the support of Cohort 8 and the team of outstanding professors at Southwest Baptist University, I am sure I would have given up at mile 20. Knowing there are people in my corner pushing me to go further and be better is what propelled me to the finish line. Cohort 8, I am here for you, finish the race. Dr. Hedgpeth and Dr. Fong, I am in awe of your knowledge, dedication, devotion to your students, and your willingness to answer my emails on weekends (my apologies to your families). Your wisdom has made me a better student and person. To my work family of doctors: Kim Fitzpatrick, Gina McBain, and Kent Sappington, thank you for always answering my calls and telling me to keep going.

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Steve and Delaney, you sacrificed the most. Your love and support are what carried me through. Without my little family, this would mean nothing. I love you more than you know. Delaney, I cannot wait to see what your future holds. You are one amazing girl, and I am so proud to be your mom. I love you more than the most.

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ABSTRACT

Understanding the impact of school leadership on student achievement is important in meeting the ever-rising demands on public education. School leaders are expected to enact change and drive schools to success. Developing the assistant principal's use of Leadership Responsibilities to assist the principal in creating the environment for change is an area with little research. In this quantitative study, the researcher analyzed the difference in assistant principals with less than three years of experience and those with three or more years of experience and their utilization of the Leadership Responsibilities tied to second-order change as identified by Marzano (2005). The researcher sought to understand if time on the job aided in the growth of skills known to successfully enact change and those negatively impacted during change. Findings indicated no significant difference in the utilization of the second-order change responsibilities or those responsibilities impacted during change.

Chapter One

Introduction

The reauthorization of the Elementary and Secondary Education Act (ESEA) has challenged schools and school leaders to ensure success for all students (McBrayer et al., 2018). Accountability measures are based on student achievement which are measured by state assessments (McBrayer et al., 2018). School leadership and teaching are the top two factors which impact student achievement (Leithwood, Seashore, Louis, Anderson, & Walstrom, 2004), which places increased pressure on the school leader.

The chief school leader tasked with making sure schools are meeting accountability measures is the principal. The role of the principal has changed over the years from a managerial position to a position which includes serving as a leader in the area of teaching and learning (Pannell & Sergi-McBrayer, 2020). The additional responsibilities mean school leaders are now responsible for curriculum development, instructional improvement, student services, financial and facility management, and community relations (Ubben, Hughes, & Norris, 2017). Attending to a multitude of tasks can result in an exhausted leader who has lost faith in one's personal ability and students falling behind (Sussman, 2018). The key to avoiding such pitfalls is the development of strong leadership capacity in the building (Jenkins, Lock, & Lock, 2018). Assistant principals, as the second in command, most likely receive the distributed tasks assigned by the principal (Morgan, 2018). Ensuring the assistant principal has the skills needed to take on the managerial and instructional tasks and further develop into a successful principal is vital to creating a leadership succession system (Schulz, Muncy, Kupczynski, Jones; 2016).

Chapter one both encompasses and describes the problems facing the preparation of assistant principals, prior to becoming principals. Specific skills would allow assistant principals to meet the challenge of being both an instructional leader and the manager of the day-to-day operations of the school. The problem and purpose of the study was developed and based on the theoretical framework of Marzano et al., (2005). The research questions and hypothesis are providing a clear understanding of the context the study is based upon.

Problem Statement

Today's school leaders are faced with the difficult task of preparing students to be twenty-first century learners while ensuring all students, regardless of demographics, make academic progress (Oleszewski, Shoho, & Barnett, 2012). The increasing demands require principals to be strong instructional leaders on top of a challenging roles and responsibilities mandatory to running a school. It takes three to seven years for the impact of leadership to show in student outcomes (Krasnoff, 2015). The average principal tenure of 3.6 years (Krasnoff, 2015) can contribute to the lack of student achievement due to the variability in the leadership (Branch, Hanushek, & Rivkin, 2013). The rate principals leave their positions averages around 20% per year (Miller, 2013) and increases to 30% for principals of troubled schools (Culpepper, 2016).

The assistant principal position is a pathway to the principalship with almost half of all principals reporting previous experience in administration, either as either an assistant principal or leadership in district administration or curriculum (Cox, Parmer, Strizek, & Thomas, 2016). A lack of consistency in the roles and responsibilities of assistant principals is evident, thus creating a gap in exposure to the Leadership

Responsibilities Marzano's (2005) meta-analysis found to impact student outcomes. Lack of experience potentially creates a barrier to success when assistant principals assume the role of the principal (Mitchell, Armstrong, & Hands, 2017). Assistant principal roles are determined by the school principal and change when the principal changes (Mitchell, Armstrong, & Hands, 2017). Lack of consistent responsibilities lends itself to a lack of substantial experience with different responsibilities and creates vulnerabilities within the assistant principal (Mitchell, Armstrong, & Hands, 2017). Even with the need for an instructional focus identified in the early 2000's, VanTuyle's (2018) research showed the role of the assistant principal primarily centered around tasks involving the management of people and less around curriculum and instruction. Assistant principals identify higher self-efficacy in the areas they are able to practice, although the areas often practiced are determined by the principal and are not always areas of strength (Morgan, 2018). Areas of practice or lack thereof, provides justification for the need for a study examining the roles and responsibilities of assistant principals to help in preparing the next generation of principals.

Purpose of the Study

The purpose of this casual-comparative study is to examine Marzano's 21 leadership qualities specifically the utilization of seven of the responsibilities related to second-order change and how four of the responsibilities are negatively impacted during second-order change. The focus of the study is comparing elementary assistant principals in Missouri with less than year of administrative/leadership experience with assistant principals with more than three years of administrative/leadership experience. The independent variable is assistant principals in Missouri with less than three years of

experience and assistant principals in Missouri with three or more years of experience. The dependent variable is defined as the utilization of the second-order Leadership Responsibilities identified by Marzano et al. (2005) and the four Leadership Responsibilities which are negatively impacted by second-order change. The four responsibilities as defined by Marzano et al. (2005) are culture, communication, order, and input. Elmore (2003, p.9) concluded "Knowing the right thing to do is the central problem of school improvement." Gaining experience working within the Leadership Responsibilities known to effect second-order change both positively and negatively could give assistant principals the ability to increase personal success as a leader. Marzano et al., (2005) found the correlation between leadership and student achievement was a small of effect size of .25. Thus, the .25 effect size of the data makes the study of the utilization of the responsibilities of all members of a school leadership team important. While teams may consist of different staff members, the assistant principal, as a likely successor, is a key member to consider (Hall, Childs-Bowen, Cunningham, Pajardo, & Simeral, 2016). Anast-May, Buckner, and Geer (2011) found future principals must be given the opportunity to engage in activities which address instruction, achievement, and leadership to meet the needs of schools. Gray and Lewis' (2013) research on principal preparation as an instructional leader, indicates potential leaders must be immersed in assignments where they are experiencing the intensity of the principal's daily work. This study seeks to determine if the utilization of Leadership Responsibilities increases over time spent in the assistant principal position.

Guiding the second-order change within a school and leading a school towards successful student outcomes requires a leader with effective leadership skills (Fullan,

2001). Marzano et al. (2005) maintain second-order change might not come naturally to a leader and is a break from normal practices. While the assistant principals may have gained knowledge of the Leadership Responsibilities needed to take on the challenges they will face as a principal, knowledge alone is not enough (Weller & Weller, 2002) Precise and intentional practice must come alongside the knowledge (Weller & Weller, 2002). Effective districts support principals and provide them with time for peer collaboration, coaching, and action research (Easton, 2015). Marzano et al. (2005) claim finding one person with a deep understanding of the responsibilities is slim and recommend building a leadership team to effectively carry out the work. Increasing leadership competency is built by on the job learning opportunities created by using knowledge in practice (Erkens & Twadell, 2012). Determining if assistant principals are given the opportunity in their daily work to practice skills related to second-order change could fill a gap in the research on leadership development and preparation for principal succession.

Research Questions

1. What is the difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?
2. What is the difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?

Null Hypotheses

1. There will be no statistically significant difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience.
2. There will be no statistically significant difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience.

Theoretical Framework

The theoretical lens used to examine the practice of assistant principals was the research of Marzano et al., (2005) on school leadership. Marzano et al. (2005) conducted a meta-analysis on the correlation between school leadership and student achievement. The meta-analysis examined 69 studies conducted on leadership and academic achievement and the 69 studies involved 2,802 schools, 1.4 million students, and 14,000 teachers (Marzano et al., 2005). The information from the studies was analyzed using a factor analysis of responses to a 92-item inventory questionnaire (Marzano et al, 2005). The studies concluded the correlation between leadership and student achievement was .25. Correlational coefficients look at the relationship between two variables so when the value ranges from .00 to +1.00, the correlation is direct or positive (Mertens, 2019). When the correlational coefficient of .25 falls in the small effect category (Salkind, 2014).

From Marzano's (2005) research, a framework of 21 Leadership Responsibilities were identified as behaviors principals exhibited which correlate with student achievement (Marzano et al., 2005). The Leadership Responsibilities as defined by Marzano (2005) are as follows:

- Affirmation - The way in which leaders recognize and celebrate accomplishments and acknowledges failures. A leader needs to have an equal understanding of the positive and negative aspects of what is happening within the building to lead from neutral ground. Recognizing positive events which lead to student gains comes easier than recognizing individuals or groups who are failing to help student outcomes. Both types of recognition are part of affirmation.
- Change Agent – A principal who is a change agent is willing to challenge and actively challenges the status quo. Continually looking for more innovative and effective ways to lead is part of everyday practice. This type of leader is willing to see a change through even when the outcomes are uncertain. They translate this to the behaviors of staff members by encouraging and protecting staff members who are willing to take risks.
- Contingent Rewards – When a leader recognizes and rewards individual accomplishments. Rewarding staff may not always occur in the educational setting, therefore, the leader needs to be proactive in creating a culture where rewarding individual teachers is commonplace. The rewards are given for hard work and results. Job performance rather than seniority is the driving factor behind rewards.

- Communication – The ability of a leader to establish strong lines of communication with and among teachers and students. To do this effectively, the leader is easily accessible to staff. Not only must the leader be able to communicate effectively with staff, but must also develop lines of communication where staff are successfully communicating with one another.
- Culture – The skill of a leader to foster a sense of community where there are shared beliefs and cooperation within the organization. When a principal builds a positive culture with teachers, it then influences students and their achievement indirectly. The behaviors associated with culture are promoting cohesion and well-being among staff and developing an understanding and shared vision for the school.
- Discipline – The disciplined leader protects teachers from issues and influences which would distract them from their teaching or focus. When teachers' time is protected, it allows them to concentrate their time and energy on the most essential outcome of their job, student achievement. Providing this protection creates a culture where instruction is seen as the most important aspect of what happens at school.
- Flexibility – Flexibility is the ability to adapt leadership behaviors to the needs of the current situation. It also means being as direct or indirect as the specific situation warrants. This is also measured by the leader's ability to be open to contrary and diverse views, while maintaining a calm

demeanor. A flexible leader must be willing to make major changes within the school.

- Focus –There is a trend in education to continually change course and rather than getting caught up in a variety of change without merit, the leader has a change effort that is focused. The leader creates this focus in the areas of instruction and general school operations. To keep a tight view, these goals are kept at the forefront by the principal. There is an expectation for all staff to ensure students meet the goals outlined.
- Ideals/Beliefs – The leader communicates and operates from strong ideals and beliefs about education and educating students. These ideals and beliefs should be conveyed to the faculty and staff in an articulate way. It is important for the leader to demonstrate what their beliefs are through their own actions.
- Input – The extent to which a leader involves staff in the decision making at a school. Staff is involved in creating policies for the building with the administration. They are also consulted in important decisions needing to be made and the results of all decision-making opportunities are communicated to the staff.
- Intellectual Stimulation – The leader makes staff and faculty aware of the most current theories and practices. They make sure best practices are a regular aspect of the school's culture and encourage dialogue around the practices. The leader ensures the practices being utilized and considered are connected to the focus of the school's change process.

- Involvement in Curriculum, Instruction, and Assessment – The principal is directly involved in the design and implementation of Curriculum, Instruction, and Assessment practices. Classroom observations are centered on the methods teachers are using and the level of student engagement and achievement. Feedback to teachers is timely and instructionally focused.
- Knowledge of Curriculum, Instruction, and Assessment – The leader is knowledgeable about current Curriculum, Instruction, and Assessment practices. They focus on developing their background in best practices around Curriculum, Instruction, and Assessment to use that knowledge to provide crucial feedback to teachers. The leader tailors their professional development to ensure they have the knowledge to lead curricular decisions for the school.
- Monitoring/Evaluating – Effective leaders monitor the effectiveness of school practices and their impact on student learning. In order for this to be impactful, the leader must create a system of feedback which is continually evaluating practices in all areas of the school and how they are influencing student achievement.
- Optimizer – The tone of a school is set by a principal who inspires and leads to new and challenging innovations. Leading by modeling a positive attitude is key in establishing a culture where staff are willing to follow and take on tasks outlined by the leader. There must be a building-based force for initiatives.

- Order – There is an established set of standard operating procedures and routines determined by the leader. This creates an environment free of chaos where staff and students know the routines. Providing and reinforcing clearly outlined procedures allows the school to operate in the most effective way.
- Outreach – Being an advocate and spokesperson for the school to all stakeholders is essential for school leaders. There must be communication to school stakeholders where the principal promotes the successes of the building. They ensure the community understands what is happening at the school and the success at which the school is meeting district or state mandates.
- Relationships – A successful school leader demonstrates an awareness of the personal aspects of teachers and staff. They must continually foster the relationships they build. Not only should a leader be aware of personal issues but also acknowledge momentous events in the staff members' lives.
- Resources – The leader provides teachers with materials and professional development necessary for the successful execution of their jobs. This can be achieved by open communication where the leader inquires about the needs of teachers. They also ensure any resources needed for new initiatives are included and available. This also includes ensuring staff has access to professional development which is essential to the skill building needed to grow in the teaching profession.

- Situational Awareness – The leader is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems. This includes understanding the inner relationships existing among staff. The leader can predict in advance what could go wrong from day to day to best intervene to keep the dissention at a minimum.
- Visibility – A principal should have quality contact and interactions with teachers and staff. Staff and students are used to seeing the leader in their classrooms, hallways, and at school events. They interact often to cultivate relationships and form connections.

Further factor analysis was conducted to determine how the responsibilities relate to one another and led to a division of the Leadership Responsibilities into two categories, thus effecting first-order or second-order change. Regularly new programs and changes emerge in education and even the most well-researched and thought-out programs may not succeed or flourish if the leadership approach does not match the order of change (Marzano et al., 2005). First-order change defined by Marzano et al. (2005), is change which comes gradually within the daily operations of the school. Additionally, second-order change is defined as change departing from the norm (Fullan, 2001).

Each of Marzano's 21 Leadership Responsibilities are viewed as effecting first-order change (2005). First-order change is often seen as the everyday way the business of school is conducted, while second-order change takes one away from what is comfortable and the norm. The seven Leadership Responsibilities related to second-order change include knowledge of curriculum, instruction and assessment, optimizer, intellectual

stimulation, change agent, monitoring/evaluating, Flexibility, and Ideals/Beliefs (Marzano et. al., 2005). When second-order change happens the change often brings about strife within the building (Marzano, 2005). As a direct impact from second-order change, Marzano's (2005) research also identifies four responsibilities negatively affected by second-order change: culture, communication, order, and input. Developing a leadership team is essential for addressing not only first and second-order change but also to mitigate the four Leadership Responsibilities challenged during a change which deviates from the normal (Heifetz & Linsky, 2004). When the focus of change involves a total shift, strife manifests in the four responsibilities mentioned above, and staff can often feel a dip in culture when asked to do something new, or feel a lack of communication or a disruption to the order of the building (Marzano et al., 2005). Leaders must be prepared to encounter challenges as change is implemented (Dolph, 2017). As part of the leadership team the assistant principal must have the knowledge and practice needed to support second-order change in part by understanding the effect second-order change can have on a building and be able to assist the principal in making sure efforts move forward instead of falling flat as many new initiatives do.

Significance of the Study

Leadership has a positive effect on student outcomes (Cotton, 2003; Marzano et al., 2005; Leithwood et al., 2004; Uysal & Sarrier, 2018). Uysal and Sarrier (2018) completed a meta-analysis on the effect of school leaders on student achievement and found leaders have both a direct and indirect impact on student outcomes. Marzano et al. conducted a meta-analysis on the correlation between school leadership and student achievement determining a correlation of .25, which is a small effect size (2005). The

research of Leithwood et al., (2004) estimates the correlation is between school leadership and achievement is between .17 and .22. The research (Marzano et al., 2005; Leithwood et al., 2004) points to the importance of strong effective leadership in our schools as such a correlation indicates.

Demands on principals cause turnover (Culpepper, 2016; McBrayer, et al., 2018; Miller, 2013). Statistics show principals are leaving at a rate of up to 50% in the first three years of service (Culpepper, 2016; McBrayer, et al., 2018; Miller, 2013). Principals leaving the profession along with the increase in the number of school principals predicted by the United States Bureau of Labor Statistics (2020), highlights the importance of training school leaders. Change in school leadership often leads to a disruption in the trajectory of the school's success (Mongillo, 2017). The assistant principal position is a pathway to the principalship with almost half of all principals reporting previous experience in administration, either as an assistant principal, district administrator or, curriculum leader (NCES, 2016). Therefore, the development of the assistant principal position is crucial to student achievement.

This study looked at assistant principals' practice of the Leadership Responsibilities defined by Marzano et al., (2005) which are key in second-order change and the responsibilities negatively affected by second-order change. The leadership behaviors are not new and have been identified in past research by Cotton (2003), but the current study sought to determine if a gap exists between assistant principals' understanding and utilization of the characteristics in their current position. Assistant principals report they are prepared adequately by leadership programs but indicate roadblocks such as time, mentorship, and practical application keep them from feeling

confident in all roles (Peters, Gurley, Fifolt, Collins, & McNeese, 2015). Assistant principals often do not set their own schedule, so understanding if assistant principals are given the opportunity to develop various leadership areas in their current position is worth being studied (Morgan, 2018; Niewenhuizen & Brooks, 2013). School leaders must be prepared to enact (change to meet the demands and accountability set by the Every Student Succeeds Act (ESSA) (Dufour, Reeves, & Dufour, 2018). Few studies devoted to the roles and responsibilities of the assistant principal and fewer studies about the practice of the important responsibilities found by Marzano (2005) and linked to second-order change have been conducted. Seven of the responsibilities are seen as helping bring about change, while four of the responsibilities can suffer when an organization enacts challenging change (Marzano et al., 2005). When staff pushes back against change, the leader must be prepared to understand why and create a culture where everyone understands the vision. Senge (1990) wrote about the importance of vision in leadership, "When there is genuine vision (as opposed to the all-too-familiar 'vision statement', people excel and learn, not because they are told to, but because they want to (p.9)." This creation of a shared vision (Kotter, 2012; Senge, 1990), must be communicated as part of the change process. Change leadership is the greatest challenge for organizations of all types (Fullan, 2014; Kotter, 2012; Reeves, 2009).

As a likely successor to the principal, understanding the experience and roles of the assistant principal may help determine the development of change-ready leaders. Leaders with two or more years of experience at a school have a bigger impact on the school's success (Sturgis, Shiflett, & Tanner, 2017). Supporting the development of the

assistant using a leadership framework may increase the ability of the principal to ensure an assistant is able to identify and focus on all areas of school leadership (Morgan, 2018).

Definition of Key Terms

21 Leadership Responsibilities. The phrase 21 Leadership Responsibilities in the study relates to the Leadership Responsibilities as defined by Marzano et al. (2005).

Elementary School. Schools designated as elementary by the Department of Elementary and Secondary Education, which includes up to 6th grade. (DESE)

First-order Change. Change which comes gradually within the daily operations of the school (Marzano et al., 2005).

Meta-analysis. The quantitative analyzing of a large body or research (Pelham, 2013).

Second-Order Change. Change requiring a dramatic shift which requires a change in behaviors (Marzano et al., 2005).

Limitations

Limitations of this study potentially include:

1. Random sampling could not occur due to the targeted group.
2. The reliability and validity of the Leadership Behaviors Survey.
3. Participants may not choose to complete the survey due to length.
4. The participants may not be representative of the years of experience needed.

Delimitations

Delimitations of this study include:

1. The study only focuses on 11 of the 21 responsibilities to focus on second-order change.
2. The study does not include private or parochial schools due to the inaccessibility of contact information within a public access database.
3. The study only includes Missouri public elementary schools.
4. The study utilized an online survey to gather data.

Assumptions

The assumptions of this study include:

1. Participants will be honest when answering the survey in regard to their behavior.
2. Participants will understand the definitions of the 21 Leadership Responsibilities.
3. Individuals surveyed will chose to participate and fill the survey out individually.

Design Controls

The research method used for this quantitative study was survey research. Survey research allows for a numeric description of opinions, trends, or attitudes of a sample population (Creswell, 2009). The survey utilized was a 63-question survey with a five-point Likert like scale response. The survey was sent to all 429 Missouri public school elementary assistant principals. Participation in the survey was voluntary and consent was obtained. The survey was sent with an explanation of the study, definition of the 21 Leadership Responsibilities, and the significance of further research regarding the

position of assistant principal. Additionally, a statement assuring anonymity and the opportunity to opt-out at any time during the survey was also included.

QuestionPro was the software program used to deliver the survey and collect the responses. Furthermore, follow-up emails were also sent a week later to nonresponsive participants encouraging each participant to complete the survey. Once data was collected it was analyzed by the researcher.

The researcher considered and addressed each of the limitations. The study focused on only the school leadership role of elementary assistant principals in the state of Missouri. Gathering contact data from the DESE open-access data site omitted private and parochial schools from the study. To assure the largest sample size of both needed groups was represented, the survey was sent to all elementary assistant principals in Missouri. The study was limited to the reliability and validity of the chosen instrument. The researcher did complete a pilot study with the survey before sending it out to ensure the most reliable instrument possible. To encourage participation, the researcher explained the 21 Leadership Responsibilities and explained the time needed to take the survey should take approximately ten minutes.

Delimitations of the study were also identified and considered. The study only focused on 11 of the 21 responsibilities to keep the focus on second-order change. The researcher utilized the DESE open-access site which only included Missouri public schools in the study. The survey utilized was delivered online and to ensure a proper sample size of responses were represented the researcher sent follow-up emails and offered a copy of the results in exchange for participation.

Summary

The purpose of this causal-comparative study was to compare the utilization of seven of Marzano's 21 Leadership Responsibilities related to second-order change and four responsibilities which are negatively impacted during second-order change, by elementary assistant principals in Missouri with less than three years of experience with assistant principals with three years or more experience. The independent variable is defined as assistant principals in Missouri with less than three years of experience and assistant principals in Missouri with three or more years of experience. The dependent variable is defined as the utilization of the second-order Leadership Responsibilities identified by Marzano et al. (2005) and the four Leadership Responsibilities which are negatively impacted by second-order change. The four responsibilities as defined by Marzano et al. (2005) include culture, communication, order, and input.

School leaders must be prepared to enact second level change to meet the demands and accountability set by ESSA. As an important leader in schools and more importantly a common pathway to the principalship, assistant principals need the opportunity to put the leadership skills defined by Marzano (2005) into practice. Understanding the roles and responsibilities of the assistant principal and the utilization of the Leadership Responsibilities could aid in effectively preparing new school principals. The research on developing assistant principals to effectively implement and handle the effects of second-order change is scant. Determining if assistant principals are actively engaged in the Leadership Responsibilities associated with second-order change would fill a gap in the research on leadership development and preparation for succession.

In chapter one, the problem surrounding the ambiguity of the roles and responsibilities of the assistant principal was introduced. In addition, the question of whether the assistant priancipal position was utilized to build the capacity of school leaders with the 21 Leadership Responsibilities was explored. The assistant principal position is imperative to the success of schools, but little research has been conducted to determine which leadership roles the position should include and how to best build the capacity of assistant principals with the leadership roles.

Chapter two of this study includes a thematic review of literature on the research pertinent to educational leadership, school principals, assistant principals, and the 21 Leadership Responsibilities outlined by Marzano et al. (2005). Information on the current state of educational leadership in the United States is also described to gain an understanding of the current reality school leaders are facing. The challenges surrounding the role of the principal in regard to the supervision and preparation of the assistant principal lays, an additional foundation for this study. The roles and responsibilities of the assistant principal, along with the challenges faced, are further examined. Finally, chapter two describes an analysis of the 21 Leadership Responsibilities. Chapter three discusses the methodology used for the study and chapter four includes the presentation and analysis of the results of the study. Additionally, chapter five concludes the study with a discussion of the findings and recommendations of the researcher.

Chapter Two

Review of Related Literature

Introduction

The reauthorization of the Every Student Succeeds Act increased the responsibility for schools to provide an equal opportunity for all students and include college and career readiness (Branch, Hanushek, & Rivkin, 2013; Fuller et al., 2017; McBrayer et al., 2018). With the Every Student Succeeds Act came the accountability measures for school districts and leaders to ensure positive student outcomes (Branch, Hanushek, & Rivkin, 2013; Fuller et al., 2017; McBrayer et al., 2018). The new pressure added to the already long list of tasks for the principal to complete, create an urgency to utilize distributed leadership among teams to most efficiently and effectively lead schools (Jenkins et al., 2018; McBrayer et al., 2018) Assistant principals are part of the team principals must lead and develop.

Along with research reporting the importance of the school leader in regard to student outcomes (Leithwood et al., 2004; Herman et al., 2017), the importance of quality successors for leaders must also be taken into consideration (Horner & Jordon, 2020). Principal instability attributes to the lack of gain in student achievement in low performing, high poverty schools (Branch, Hanushek, & Rivkin, 2013). The average tenure of school principals is 3.6 years (Krasnoff, 2015) The average tenure is significant when taking into consideration principals need between three and seven years for personal impact on a school to affect student outcomes (Krasnoff, 2015). The research of Branch et al., (2013) determined highly effective principals can increase student achievement by two to seven months in just one year. When the inevitable turnover takes

place, districts look to replace outgoing principals with leaders who can step into the role and operate effectively immediately (Roza, Celio, Harvey, & Wishon, 2003). The vacant roles are often filled by teachers or assistant principals with educational experience, but the experience alone does not prepare individuals for the role. Assistant principals often feel unprepared for the role of principal (May, 2016). Lack of training or mentorship in the areas of instruction and curriculum can lead to feelings of inadequacy (Niewenhuizen & Brooks, 2013; Sun & Shoho, 2017). This is in opposition to the degree to which they feel prepared in the areas of discipline and supervision. Assistant principals indicate they would need additional mentoring especially in the areas of improving instruction and a focus on learning (Searby, Browne-Ferrigno, & Wang, 2017). Often assistant principals lack the opportunity to perform the responsibilities needed to gain the confidence to step into the lead role (Niewenhuizen & Brooks, 2013).

The following review examines the current literature involving principals as the driver of change in schools and the preparation of assistant principals supporting and implementing change. First, the review addresses the need for change and reform in schools. The section provides some history of reform in the public schools and how school compare globally. The review then delves into the principal's role as a change agent and more specifically the Leadership Responsibilities needed to manage change. The work of Marzano et al. (2005) guides the portion utilizing the 21 Leadership Responsibilities which are defined as having the largest effect size on leadership. Additionally, literature on preparing principals for change and how the preparation programs develop strong leaders is examined. The review concludes with current research on assistant principals as a pathway to the principalship and examines the

development and utilization of the administrative role of assistant principals to further guide schools.

Change and the Need for School Reform

"Public outcry that the education system is failing and therefore in desperate need of reform may be as old as the United States itself" (Sheninger & Murray, 2017, p.1.). The 19th century brought about new jobs which required workers to be trained to meet the needs in factories rather than agriculture (Sheninger & Murray, 2017). The twentieth century brought along the digital revolution and new pressure on education, giving rise to information overload and digital devices continually becoming better and faster Sheninger & Murray, 2017; Zaber, Karoly, & Whipkey, 2019). The new era of technologies requires better education to meet the demands of the employees of today (Friedman & Mandelbaum, 2012; Zaber et al., 2019).

Development of world labor markets required the United States to change from an in country, state-to-state comparison to a global comparison. The American workforce competes across the world with workers who are often more skilled (Tucker, 2011). To understand how America compares globally, Tucker's (2011; 2014) research looked at two areas: a comparison of the educational success of other countries and the industrial benchmarking of the 1970's and early 1980's. Both comparisons revealed American systems are lagging behind other countries around the world. (Tucker 2011; 2014) American students are not performing to the same degree and American industrial companies have failed to outperform similar industries in other countries (Tucker, 2011;2014). Changes affecting the American education system come at a consistent and rather rapid rate, yet the American education system has been slow adapting to the rate of

change (Dolph, 2017). Two decades have passed since the beginning of the 20th century, yet our education system has not advanced to meet 21st century needs (Dolph, 2017; Zaber et al., 2019).

The education system in the United States, over the last 30 years, has seen immense pressure applied due to an increased demand to ensure success in the future and meet standards set by other countries (Björk, Browne-Ferrigno, Kowalski, 2014; Tucker, 2013). Pressure from the federal government grew with the authorization of No Child Left Behind as President George W. Bush outlined his ideas for transforming the current national education policy. Within the authorization of the No Child Left Behind Act was a new pressure from the federal government on the state. For states to receive funding, states had to commit to a standard of every child meeting a level of proficiency by 2014 (Dufour, Reeves, & Dufour, 2018). The bill also included an outline of the ramifications school faculty and administration would face if students failed to meet progress (Tucker, 2014).

In 2015, legislators set aside partisan politics to support what became known as the Every Student Succeeds Act (ESSA), replacing the No Child Left Behind (NCLB), which had lost the support of both democrats and republicans (DuFour, Reeves, & DuFour, 2017). The ESSA aimed at giving control of education back to the states in hopes of increasing school achievement. The ESSA requires schools to be staffed with effective leaders and teachers. One of the stipulations for schools required to undergo turnaround measures funded by the federal government includes replacement or improvement of the school leader (Branch et al., 2013; Fuller et al., 2017). The ESSA

also requires the use of research-based practices to increase the capacity of leaders as drivers of change (Fuller et al., 2017).

With the challenges the education system is faces becoming more and more complex, a trend focusing on the organizational culture and collaboration as part of the transformation efforts had developed (Browne-Ferrigno & Bjork, 2018; Tucker, 2014). Hargreaves and Shirley (2009) describe an era of educational reform which creates a triangulation of efforts between the government, public, and school professionals. The COVID-19 pandemic in the spring of 2020 brought about unprecedented changes to education and the challenges faced by the American educational system. A survey (Hamilton et al., 2020) found a need for principals and teachers to be supported by the entire school system to effectively promote student achievement. The needs concerning organizational culture continue to place more emphasis on the role of the leader in the solution (Browne-Ferrigno & Bjork, 2018; Tucker, 2014).

Principals as Change Agents

Change leadership is the greatest challenge for organizations of all types (Reeves, 2009; Fullan, 2001; Hargreaves & Shirley, 2009). To bring about change, a leader must be prepared to reframe the change so the change is viewed as a new and exciting opportunity rather than a defeating new mandate (Bolman & Deal, 2017; Kotter, 2014; Reeves, 2009). Therefore, the principal must be prepared to exercise what Marzano et al. (2009) identified as one of the top Leadership Responsibilities: change agent. Being a change agent is one of the attributes identified by Marzano et al., (2005) in which a principal enacts to positively impact student achievement.

Fullan (2001), asserts to be a change agent, an educational leader must first understand the process of change. In his book, *Leading in a Culture of Change*, Fullan (2014) outlines six items for a leader to follow to gain an understanding of the change process. “The goal is not to innovate the most. It is not enough to have the best ideas. Appreciate the implementation dip. Redefine resistance. Re-culturing is the name of the game. Never a checklist, always complexity” (p. 34). Principals must create a foundation for change by balancing their own sense of urgency with the needs of the organization and the members to ensure a successful change initiative (Fullan, 2001, 2010; Kotter, 2012; Reeves, 2009; Thornton, Usinger, & Sanchez, 2019). Each building has its own culture defined by the beliefs and actions of both individuals and groups. The leader must model the behaviors the team should exhibit to best enact change within the culture (Kotter 2012, 2014; Reeves 2009, 2016). One of the seven competencies for school leadership according to Kirtman (2014) is a leader’s sense of urgency for change and sustainable results for improving school achievement. The successful school leader should be very decisive and build an organization with a set direction which ensures the sustainability of change (Kirtman, 2014).

To carry out change, the leader must build the capacity of the team to focus on changes which will bring forth the greatest results (Fullan, 2001, 2010; Kotter, 2012; Reeves, 2009, 2016). Capacity can be built in hiring the right people as well as increasing the knowledge base of the teachers in the building already (Fullan, 2010). Reeves (2009) contends an interview alone may not be enough to truly gauge the strengths of a candidate but combining the interview with both a teaching performance event and data analysis can give the hiring leader a more comprehensive idea of the candidates’

professional practices. To expand a teacher's knowledge base, leaders should enact coaching practices along with professional development (Fullan 2001, 2010; Knight, 2019; Kotter, 2012; Reeves, 2009). The building leader's change leadership can reinforce willingness to participate in the professional development needed to align with the change (Chang, Chen, & Chou; 2017).

To fully implement change, the school leader must have the ability to enact revolution which causes movement in an improved direction (Fullan, 2010; Kotter, 2014; Shirley, 2016). The process must be coupled with buy-in from the staff or the implementation will not maintain its full potential (Fullan, 2014). Visible and short term wins clearly related to the change effort can reinforce the initiatives (Kotter, 2012; Reeves, 2009). Recognizing effective practices throughout the year with an emphasis on effectiveness is also key to encouraging a continued change in practice (Reeves, 2009; Shirley & Noble, 2016).

In *The Fourth Way,* Hargreaves and Shirley (2009) indicated, "the hardest part of educational change is not how to start it, but how to make it last and spread" p. 94. To truly enact successful change, the change must be sustained over time (Hargreaves & Shirley, 2009; Reeves, 2009; Shirley & Noble, 2016; Weston, Ferris, & Finkelstein, 2017). In order for change to be sustainable, change must be enacted by the entire faculty with consistency (Fullan 2010; Reeves, 2009, 2016). Succession of the leader is a serious consideration for the sustainability of change (Fullan, 2005;Gissom & Bartanen, 2019). The supply of leaders prepared to take on all aspects of leadership does not meet the demand (Roza, Celio, Harvey, & Wishon, 2003). Distributed leadership is important considering succession when effective change leaders leave (Hargreaves & Shirley, 2009;

Elmore, 2012). The definition of distributed leadership asserts change must come from all staff for the change to remain (Hargreaves & Shirley, 2009). The leader must tackle the needed change with equal magnitude (Marzano et al., 2005).

> If leadership techniques do not match the order of change required by an innovation, the innovations will probably fail regardless of its merits. Some innovations require changes that are gradual and subtle; others require changes that are drastic and dramatic. For this discussion, we refer to these categories of change as first-order change and second-order change, respectively (Marzano et al., 2005, p. 66).

Marzano et al. refers to first-order change which is incremental and not a departure from the past, while second-order change is seen as a deep fundamental change (2005). Kotter (2014) calls first and second-order change a dual-system structure whereby a network is on one side and hierarchy on the other. The network side takes on the more complicated work which needs high-level innovation and change, while the hierarchy side deals more on the routine everyday change (Kotter, 2014). Second-order change requires resources not currently available to the individuals responsible for implementing the innovations (Marzano et al., 2005). Change can be resisted because second-order change is a break from the past and often conflicts with prevailing values and norms (Marzano et al., 2005). Change requires the acquisition of new skills and knowledge so when considering student outcomes, a principal must utilize responsibilities specifically related to second-order change (Marzano et al., 2005; Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007)

The work of Rogers (2003) around the Diffusion of Intervention theory is important for leaders focusing on change. Rogers' (2003) research defines five levels of how people embrace change. The five levels are innovators, early adopters, early majority, late majority, and laggards (Rogers, 2003). Innovators of change only make up about 2.5% of staff and are known to initiate ideas and take on new tasks (Rogers, 2003). The early majority makes up around 13.5% and is defined as individuals who often take on leadership roles and embrace change (Rogers, 2003). The early majority group would be a logical leadership team, representing 34% and characterized by individuals who embrace change once evidence of success of the proposed change is see (Rogers, 2003). The early majority group is important to target as an organization embarks on second-order change, as Marzano et al., (2005) shows the responsibility of optimizer as vital to second-order change. Leaders must remember the importance of overcommunicating the goal to ensure individuals in the early majority see evidence and are willing to support the change initiative (Marzano et al., 2005). Late majority also makes up around 34% and are individuals often skeptical of new implementations and are usually only on board with an idea once the idea has been put in place by many individuals. A leader must understand culture, communication, order and input are negatively impacted during change (Marzano et al., 2005). Using the knowledge of the four negatively impacted during change can help leaders ensure clear communication with the late majority on the change initiative and create a culture where individuals feels safe and change is important (Marzano et al., 2005). The laggards represent around 16% and are individuals hardest to convince to commit to an innovation and often respond to pressure or fear (Rogers, 2003). Second-order change must be entered into swiftly, therefore leaders needs to be

ready to address employees who might not be ready to embrace the change (Marzano, 2005; Fullan, 2014).

In the following section, the researcher will look at the Leadership Responsibilities identified by the work of Marzano et al. (2005). The section defines each of the 21 Leadership Responsibilities with support from other literature. In addition, the following section will explain how each of the Leadership Responsibilities relate to either first or second-order change.

Leadership Responsibilities of School Principals

Through a meta-analysis of previous research, Marzano et al. (2005) identified 21 Leadership Responsibilities effective leaders exhibit. Although the behaviors are not new the Leadership Responsibilities give new understanding to leadership practices which affect student achievement (Marzano et al., 2005). Marzano's (2005) research measured the impact of leadership on student achievement using a correlation coefficient. Correlational studies use a coefficient between 1.00 and -1.00 so the closer the relationship between two items is to 1.0 the stronger the relationship (Salkind, 2014). With a positive correlation, an increase of two variables together is evident (Mertens, 2019). John Hattie (2009) completed a meta-analysis on student achievement and found of the indicators studied, an average .40 effect was present. The Leadership Responsibilities identified and studied in Hattie's (2009) meta analyses had correlational coefficients ranging from .18 to .33 with the average .25. Correlational coefficients look at the relationship between two variables so when the value ranges from .00 to +1.00, the correlation is direct or positive (Mertens, 2019). When the correlational coefficient ranges between .3 and .5, the strength of the association is medium (Salkind, 2014).

Marzano's (2005) research further analyzed the practices and the effect on first and second-order change. First-order change is incremental and uses previous experiences and approaches to solve problems while second-order change is identified as requiring a way of exploring the problem and solutions which deviate from the normal and expected (Marzano et al., 2005). The analysis of the Leadership Responsibilities shows all 21 are important to first-order change, while seven are related to more complex second-order change and four are negatively affected by second-order change (Marzano et al., 2005). The 21 responsibilities affecting only first-order change include affirmation, change agent, contingent rewards, communication, culture, discipline, Flexibility, focus, Ideals/Beliefs, input, intellectual stimulation, Involvement in Curriculum, Instruction, and Assessment; knowledge of Curriculum, Instruction, and Assessment; monitoring/evaluation, optimizer, order, outreach, relationships, resources, situational awareness, and Visibility (Marzano et al., 2005).

While all the Leadership Responsibilities support first-order change for organizational purposes, the Leadership Responsibilities can be defined in three groups. The first set of Leadership Responsibilities include the ones supporting only first-order change. The next set of responsibilities are grouped as responsibilities identified as having the greatest impact on second-order change. The last set of responsibilities can be grouped into four responsibilities which are negatively impacted by second-order change.

Key Leadership Responsibilities and First-order Change. The following is an overview of the responsibilities for first-order change. The first-order change responsibilities are: 1. affirmation, 2. contingent rewards, 3. discipline, 4. focus, 5. Involvement in Curriculum, Instruction, and Assessment, 6. outreach, 7. relationships, 8.

resources, 9. situational awareness, and 10. Visibility (Marzano et al., 2005). The effect sizes of the first-order Leadership Responsibilities range from .18 to .33 (Marzano et al., 2005). All of the first-order change responsibilities have a small effect size except situational awareness, which has a medium effect size (Marzano et al., 2005). A brief review of each of first-order change responsibilities is described in the following sections.

Affirmation. The first Leadership Responsibility is Affirmation. Marzano et al., (2005) associates recognizing accomplishments and failures of the school with affirmation and determined the effect size is .19. Affirmation shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .19, the strength of the effect size is small (Salkind, 2014). The meta-analysis performed by Marzano et al., (2005) defined three behaviors relating to affirmation. Affirmation includes recognizing and celebrating the successes of both students and teachers, as well as, recognizing the failures of the school as a whole (Marzano et al., 2005). A leader who exhibiting the responsibility of affirmation is direct and forthcoming about expectations (Kirtman, 2014).

Davis and Leon (2014) assert the idea leaders can build the capacity of their team by accentuating and celebrating the wins. Offering specific and detailed appreciation provides reinforcement and affirmation on the actions of teachers (Combs, Harris, & Edmonson, 2015). Staff particularly value a leader who genuinely appreciates an individual's work and provides affirmation regularly (Muhammad, 2018, Reeves, 2016). Olsen and Huang (2019) found principals who gave teachers praise brought about an

increase in teacher efficacy and this efficacy led to an increase in teachers' collaboration with teammates, enthusiasm, and risk-taking.

Celebrating the wins of the school to the community by using social media, announcements, and any communication media available, affirms the successes of students (Sanfelippo et al., 2016). For a leader to acknowledge the shortcomings along with the successes, leaders must be comfortable addressing conflict (Kirtman, 2014). It is more difficult for leaders to address the negative performance of staff but addressing negative performances is imperative to keep high-performing staff around (Marzano et al., 2005).

Contingent rewards. Contingent rewards is the second leadership responsibility and can be described as the opportunity to reinforce what is important to the work of the school by pointing out the hard work or results of the school staff (Marzano et al., 2005). Reinforcing the work of their team is a way for leaders to remind everyone what is important (Marzano et al., 2005). The effect size of contingent rewards is .24. The effect size of .24 shows a positive relationship, as the leadership skill increases, so does the student achievement, so that at .24 the strength of the effect size is small (Salkind, 2014). Rewards should be driven by results rather than the longevity of employment (Marzano et al., 2005). School leaders often celebrate the whole but not individuals, however, rewarding good teaching sets the expectation for the rest of the staff (Marzano et al., 2005). Setting short term goals and then celebrating the success of reaching the goals has shown to keep the members of an organization focused on the desired outcomes (DuFour, 2015; Kotter, 2012). Teachers need to have their achievements recognized, thus the leader should always take the opportunity to

encourage and reward teacher efforts (Kempa, Rudolf, Ulorio, Marthen, Wenno, & Izaak, 2017). Kouzes and Posner (2017) identify one of their five exemplary leadership practices as encouraging the heart. Kouzes and Posner (2017) describe the practice encourage the heart, as showing appreciation for people and their contributions. To do this one must affirm values and victories and can be accomplished by simply saying thank you (Kouzes and Posner, 2017). Employees who rate leaders above-average, indicate praise for a job well done is a large factor (Kouzes and Posner, 2017).

A leader who practices contingent rewards keeps the goals of the organization in front of the staff (Bolman & Deal, 2017 Kouzes & Posner, 2017; Muhammad, 2018). As an organization, the leader must celebrate what is of value and celebrations should be both planned and impromptu (Bolman & Deal, 2017 Kouzes & Posner, 2017; Muhammad, 2018). When celebrations are authentic staff buy-in is created (Muhammad, 2018). Kouzes and Posner (2017) note celebrations within an organization are another way to connect the staff through shared values and create a sense of community to keep the focus on the needed outcomes.

Discipline. The third Leadership Responsibility of Discipline has an effect size of .27 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). At an effect size of .27, the strength of the effect size is small (Salkind, 2014). Keeping control of distractions from the goal of the building is an effective Leadership Responsibility (Fullan, 2014; Marzano et al., 2005). Two characteristics Marzano et al., 2005 defined as affecting discipline include protecting instructional minutes and teachers from distractions by internal and external sources. Discipline by the leader allows teachers to focus on instruction and learning

(Elmore, 2006; Marzano et al., 2005). Principals must identify things getting in the way of teaching and eliminate distractions (Elmore, 2006; Marzano et al., 2005). Schools are often overflowing with initiatives and the leader must help keep the initiatives from becoming a distractor (Reeves, 2009). The effective principal protects instructional time by monitoring things taking away from classroom instruction and ensure time for instruction to take place (Cotton, 2003; Marzano et al., 2005).

Elmore (2006) contends while instructional leadership is the holy grail, the discipline practices of a principal influence the hiring practice. The ability to buffer teachers from outside interference is a coveted skill of an administrator (Elmore, 2006). A key attribute for principals involves the ability to anticipate distractions (Sterrett, Parker, & Mitzner, 2018) Understanding which distractions and disruptions teachers are facing helps the leader to create procedures to protect teachers' instructional time (Sterrett, Parker, & Mitzner, 2018).

Focus. Focus is the fourth Leadership Responsibility which has an effect size of .24 and shows a positive relationship, as the leadership skill increases, so does student achievement (Marzano et al., 2005). At an effect size of .24, the strength of the effect size is small (Salkind, 2014). School leaders who have a clear end goal, stay focused on the goal, and remind staff of the goal often are more effective leaders (Marzano et al., 2005). The four behaviors associated with focus include setting goals for curriculum and instructional practices, setting goals for the operation of the school, setting high expectations for all students, and keeping a focus on the goals (Marzano et al., 2005). Schools are sometimes too willing to change directions with new initiatives which come along but an effective leader stays focused on the goal even if the goal is not

consent of the whole group (Marzano et al., 2005). In a study of high-reliability schools Marzano, Warrick, Rains, Dufour, and Jones (2018) found the leader must have a laser focus on using data to drive the school forward. The leader is not necessarily concerned with consensus but rather on developing teams striving to focus on the desired results (Kirtman, 2014). Effective leaders are aware of potential distractors and issues which could sidetrack the real work which needs to be accomplished and are wary to take on new programs too frequently (Fullan, 2014, Reeves, 2016).

Involvement in Curriculum, Instruction, and Assessment. The fifth Leadership Responsibility is Involvement in Curriculum, Instruction, and Assessment with an effect size of.20 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .20, the strength of the effect size is small (Salkind, 2014). The Leadership Responsibility of Involvement in Curriculum, Instruction, and Assessment is central to the concept of an instructional leader (Marzano et al., 2005). Differing from the Leadership Responsibility of Knowledge of Curriculum and Instruction, the Involvement in Curriculum, Instruction, and Assessment is more of a hands-on approach which allows the leader to be actively involved in the design and implementation of curriculum (Marzano et al., 2005). When exhibiting the leadership trait of Involvement in Curriculum, Instruction, and Assessment, the leader is involved in helping plan curricular lessons and work through issues surrounding assessment and instruction (Marzano et al, 2005). The involvement of the leader is highly rated by teachers as important (Marzano et al., 2005).

Curriculum leaders are central to the improvement of student outcomes (Allison et al., 2011; Fullan, 2014; Kirtman, 2014). The responsibility of the leader is to ensure

instructional practices are what is needed to affect student outcomes (Allison et al., 2011). To do this, the leader must be actively involved in learning deeply about instructional practices and ensuring all staff members are carrying out the practices effectively (Allison et al., 2011). Leaders must also be involved in the assessment processes to gauge the effectiveness of instructional practices and keep current on the success of students (Allison et al., 2011; Fullan, 2014).

Outreach. Outreach is the sixth Leadership Responsibility connected to first-order change with an effect size of .27and shows a positive relationship, as the leadership skill increase, so does the student achievement (Marzano et al., 2005). With an effect size of .27, the strength of the effect size is small (Salkind, 2014). To create a sense of community within the school, leaders must advocate for the school with parents involves advocating with parents, district offices, and the outside community (Marzano et al., 2005). While Kransnoff (2015) agrees school leaders often work to build relationships with the community of stakeholders outside the school, they contend the role of the principal outside of school can be unclear and challenging. Leaders ensure they are connected to the world outside of the school and understand the importance of being involved on behalf of the students and staff of their organization (Simon and Johnson, 2015). Kirtman (2014) alleges highly effective leaders are generally comfortable working with people outside of the school walls and develop a network to drive the mission of the school forward.

According to Smith and Piele (2006), data has revealed a school's success can be tied to how a school leader works with the community. Five ways has been identified as positive influencers on fostering school community building with outside stakeholders.

School leaders actively seek volunteers to become involved in many aspects within the school building as the school has an active public relations network (Smith & Piele, 2006). There is a two-way interaction with the community, with community members coming into schools and students and staff going out into the community to work, thus creating an identity and advertise it within the community of stakeholders.

Relationships. Relationships are the seventh Leadership Responsibility with an effect size of .18 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .18, the strength of the effect size is small (Salkind, 2014). To create a strong alliance which withstands times of turmoil, a leader must focus on creating personal relationships (Marzano et al., 2005). Understanding personal needs, being cognizant of personal events and situations in the lives of staff members helps create a bond between faculty and administration (Marzano et al., 2005). Interactions with teachers build student learning capacity (Adams, Olsen, & Ware; 2017). The school leader understands the people not the programs make a difference with the student outcomes (Whitaker, 2020).

The leader is not only taxed with forming good relationships but also facilitating relationships between staff members for it is not merely the act of having a relationship but rather ensuring relationships are capable of producing desirable results (Fullan, 2001). In a study of principals, Mombourquette (2017) found effective principals focus on relationships before taking on more challenging tasks, as building relationships was found to be paramount to encouraging teachers and staff to take risks. Building relationships aided the leaders to drive forth innovative practices which enacts positive outcomes for students (Simon and Johnson, 2015). “They build authentic relationships

because they instinctively know human connections are like magnets that attract and are agents of momentum" (Simon and Johnson, 2015, p.24).

Resources. Resources are the eighth Leadership Responsibility with an effect size of .25 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). The Programme for International Student Assessment (Nappi, 2019) identified four types of resources in education: spending, human resources, material resources, and time resources. Schools do not have an equitable amount of resources available. In a review, Hanushek and Woessmann (2017) determined resources available did play a small role in impacting student achievement but the way the resources were utilized was more important. To take on effective instruction, teachers must have resources including professional development (Marzano et al., 2005). Effective leaders support teachers with materials and make sure teachers understand how to use new materials to effectively deliver instruction (Marzano et al., 2005). DuFour and Marzano (2009) also highlight the need for a principal to utilize the data gathered by teacher teams to identify resources needed and make the resources available for teachers to gain what is needed to impact an area of weakness.

Sanfelippo and Sinanis (2016) advocate to support staff by allowing staff to develop their own professional development plans as this allows staff to build their own capacity. To support staff in developing professional development plans, the leader must be actively engaged in supplying the needed resources (Cotton, 2003). A leader can support teacher goals by being mindful of resources and materials needed and purchase

such supplies when available to do so. This may involve purchasing material, books, or journal articles the leader comes across in their own work, as well as online materials.

Situational awareness. Situational awareness is the ninth leadership responsibility, with an effect size of .33 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al, 2005). With an effect size of .33, the strength of the effect size is medium (Salkind, 2014) and is the highest effect size of all the Leadership Responsibilities. The effect size is in line with research which shows keeping abreast of the needs of the building while focusing on the mission and vision of the building is a hallmark of the most effective school leaders (Stein, 2016). The effective school leader has awareness of the current state of stakeholders (Marzano et al., 2005). Being mindful of problems which could develop from day-to-day can help the leader stay ahead of problems. Approaching problems head-on, at their inception, is important to keep culture positive. Verbal and nonverbal interaction with staff regularly help leaders to understand the overall feeling of the building as communicating only electronically is not enough (Bambrick-Santoyo & Peiser, 2012). Lencioni (2016) defines a virtue of an ideal team player as smart and then goes on to define smart as a person who seems to always know what is happening within the organization and able to most effectively deal with any internal issues. Leaders must have an awareness about staff not meeting standards needed to benefit students and must be willing to act if necessary (Stein, 2016).

***Visibility*.** The tenth Leadership Responsibility is Visibility with an effect size of .20 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .20, the strength of

the effect size is small (Salkind, 2014). Being seen in classrooms, at school functions, and around the building shows the principal is interested and engaged in what is happening throughout the school community (Marzano et al., 2005; Whitaker, 2020). The way the leader is seen engaging with staff, students, and parents help to set and maintain the desired culture (Bambrick-Santoyo & Peiser, 2012). Cotton contends, "In high-achieving schools, the principals do not spend their time cloistered in their offices, keeping company with administrivia" (2003, p.15).

The leader needs to maintain a presence for the sake of all school stakeholders for if the leader goes a long period of time without being visible to teachers in their classrooms, the teachers may begin to decrease focus on providing the best educational environment (Whitaker, 2020). Teachers attribute Visibility to staff morale and improved school culture (Stein, 2016) as Visibility equates to presence. Connors (2014) described principals who are present as individuals who are in and out of classrooms and can speak to the school, the curriculum, and the happenings within the building. When a principal is visible and present the presence is evident by the reaction of the teachers and students for if a principal enters a classroom and the class continues as normal, it indicates the principal is often part of the culture and happenings in the building (Connors, 2014).

Being visible in the building creates an atmosphere of trust with staff, students, and community as students develop trust in a leader they see in the classroom, lunchroom, and bus line (Sanfelippo & Sinanis, 2016). Investing time in students by listening, engaging, and celebrating helps students feel safe enough to take risks (Sanfelippo & Sinanis, 2016). Taking the opportunity to talk with staff about more than just evaluations helps build a relationship and adds to the leaders' understanding of the

inner workings of their building (Sanfelippo & Sinanis, 2016). While all of the Leadership Responsibilities have importance when viewing change, it is important to delve into the remaining seven Leadership Responsibilities which support second-order change as well.

Key Leadership Responsibilities and Second-order Change. Educational leadership requires adapting to ever-changing requirements and meeting thresholds set by outside organizations and often takes a radical departure from the norm. To meet goals set by governing organizations, the leader must have the capacity and willingness to utilize responsibilities associated with second-order change (Fullan, 2001; Kotter 2014; Marzano et al., 2005). According to Marzano et al., (2005) the seven Leadership Responsibilities found to be related to effective second-order change include: 1. knowledge of Curriculum, Instruction, and Assessment, 2. optimizer, 3. intellectual stimulation, 4. change agent, 5. monitoring/evaluating, 6. Flexibility, and 7. Ideals/Beliefs. The effect sizes for each of the responsibilities range from .19 to .27, which represents a small effect size. It is important to look at each of the seven Leadership Responsibilities more closely due to the need to successfully enact the change needed to lead the United States education system in the direction of top-ranking systems (Björk, Browne-Ferrigno, Kowalski, 2014; Tucker, 2013).

Knowledge of Curriculum, Instruction, and Assessment. Knowledge of Curriculum, Instruction, and Assessment is the first second-order change responsibility to be defined with an effect size of .25 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al, 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). Having a direct

role in designing curriculum for use in the classroom is a responsibility which teachers highly regard in a leader. Marzano et al. (2005) defined the responsibility as having a hands-on approach to Curriculum, Instruction, and Assessment at the classroom level. The principal's involvement in instructional programs has been identified as the key difference between the effectiveness of schools (Cotton, 2003; Fullan, 2014). Principals in high performing schools spend a higher percentage of their day involved in instruction when compared to principals in lower performing schools, thus spending time in instruction leads to higher achievement (Blasé & Blasé, 2010; Weigel & Jones, 2015).

In addition to having a role in curriculum in the classroom, it is also important for the leader to have extensive knowledge about the instructional, curricular, and assessment practices (Marzano et al., 2005). Leaders and stakeholders with knowledge about curriculum, instruction, assessment create second-order change (James-Ward & Abuyen, 2015). Principals understand research-based strategies and use the knowledge of the strategies to guide instruction in their schools (Fullan, 2014). Leaders use their Knowledge of Curriculum and Instruction to provide feedback to teachers to increase student outcomes (Marzano, Frontier, & Livingston, 2011). Fuller, Hollingworth, and Pendola (2017) reported principals with instructional leadership skills leads to increased teacher capacity. Neumerski et al. (2018) reported principals when given detailed rubrics to observe instruction, led to better teaching and learning outcomes.

In the book *Effective Supervision,* Marzano, Frontier, and Livingston (2011) review the history of supervision and evaluation of teachers and the need for changes to be made. The research focused on the following statement, "…the purpose of supervision should be the enhancement of teachers' pedagogical skills, with the ultimate goal of

enhancement of teachers' pedagogical skills, with the ultimate goal of enhancing student achievement (p. 3)". A considerable amount of research has been conducted regarding how students learn and strong instruction. To provide the feedback necessary to build capacity in teachers, the leader must have a strong knowledge base of curriculum and instruction (Fullan, 2001).

Optimizer. Optimizer is the next second-order change responsibility with an effect size of .20 which shows a positive relationship, as the leadership skill increases, so does the student achievement. With an effect size of .20, the strength of the effect size is small (Salkind, 2014). The ability of a leader to positively motivate staff and encourage efforts with change is the definition Marzano et al. (2005) give to optimizer. As an optimizer, leaders with a positive attitude inspire teachers to achieve things seemingly unachievable and drive forth initiatives (Marzano et al., 2005). Optimism is particularly important with second-order change which requires a sustained focus on long-term initiatives as the effective leader has a vision and presents the vision others positively and in a way which is understood (Cotton, 2003; Mombourquette, 2017; Muhammad, 2018). Optimizers motivate others to see the vision and pursue the vision with them. The ability to motivate is crucial when an initiative or curricular change must be implemented (Fullan, 2009).

As an optimizer, the principal must focus on developing leaders within the building to do the hard work of leading teams forward and through change (Allison et al., 2011). Allison et al., in the book *Activate (*2011), calls motivating leaders, multipliers. Multipliers are leaders continuously developing teachers within in the building to carry out the vision (Allison et al., 2011). Multipiers are able to attract developmental teachers

by promoting teacher strengths and creating an environment where teacher leaders want to step forward and lead (Allison et al., 2011).

Intellectual stimulation. Intellectual stimulation is the third second-order change responsibility described by educational leaders who take on new theories and learning and pass it to their staff (Simon and Johnson, 2015). Intellectual stimulation has an effect size of .24 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .24, the strength of the effect size is small (Salkind, 2014).

Marzano et al. (2005) indicate there is an importance for the leader to understand the innovation needed to bring about in times of second-order change; defining effective leaders as individuals who stay abreast of developments in their area of work. Effective leaders both participate in professional learning and deliver learning with others (Marzano et al., 2005). Leaders find a balance of focusing on their organization while engaging in opportunities for growth from a variety of avenues (Marzano et al., 2005).

Being an effective lead learner requires constant learning about current research and practices in education as the leader is often taxed to pass current research and technology on to teachers in a way which invites innovation in teaching (Marzano et al., 2005). In many of the top-performing education systems, like Singapore, principals are called head-teachers as they continue to teach and were typically appointed because of the quality of the teaching and understanding of instruction (Tucker, 2011). Combs, Harris, and Edmonson (2015) outline a leader's competence as a prerequisite to trust as teachers have more trust in leaders with a high capacity of knowledge and skills. It is also

important for leaders to be seen as continual learners who use that knowledge to grow professionally and impact teachers positively (Combs et al., 2015).

Change agent. The fourth second-order change responsibility is change agent with an effect size of .25 (Marzano et al., 2005). The effect size shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). A leader willing to challenge what has always been done and instigate and lead initiatives to effect positive change is considered a change agent (Marzano et al., 2005). The behaviors associated with change agent responsibility are challenging organizations' practices, staying the course when the outcome is unknown, and planning change (Marzano et al., 2005). Effective leaders of second-order change tend to challenge the status quo especially if it is not meeting the goal of impacting student outcomes (Fullan, 2014; Kirtman, 2014; James-Ward & Abuyen, 2015). Change agents have an awareness of school data and understand how to utilize the data (Fullan, 2014; James-Ward & Abuyen, 2015).

Monitoring/Evaluating. Monitoring/Evaluating is the fifth second-order change responsibility. The effect size is .27 shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .27, the strength of the effect size is small (Salkind, 2014). Playing an integral role in understanding the outcomes of instruction and curriculum in the building is part of the Leadership Responsibilities outlined by Marzano et al. (2005). Understanding the effect second-order change is having on the organization is particularly important. Setting up a systematic way for monitoring student progress and

routines to disseminating the information to parents is necessary for effective leadership (Cotton, 2003; Nappi, 2019; Reeves, 2016). The leader must understand the outcomes the building is experiencing and intervene if necessary (Fullan, 2014).

High performing systems focus on utilizing improvement cycles when evaluation is a central part of their practice (Jensen, Sonnemann, Roberts-Hill, & Hunter, 2016). The parts of the cycle do not work in isolation and must contain a strong focus on the evaluation output (Jensen, et al., 2016). Understanding the impact of teachers' instructional practices is vital in giving teachers the feedback necessary to adjust their craft (Jensen et al., 2016). Feedback has been thoroughly researched and found to be one of the most powerful influences on outcomes (Hattie, 2009). Hattie's (2009) work gives feedback an average effect size of .75. Leaders should regularly monitor not only what teachers are teaching but also if students can demonstrate learning (Elmore, 2006). It takes monitoring and evaluating an organization to allow the leader time to gather information needed to provide the feedback needed (Jensen et al., 2016).

The Planning, Implementations, and Monitoring (PIM) process is an improvement cycle developed to help districts understand what is working, what is not working, and why (Allison et al., 2011). PIM cycle, developed by The Leadership and Learning Center (2005), is a seven-step process. One step includes monitoring and evaluation and during the phase, both the teacher practices and students' outcomes are monitored to gain data on student success (Allison et al., 2011). During this stage, the school determines if the plan is working or not and why (Allison et al., 2011). If one only monitors one side of the teaching and learning an understanding of the interaction between teaching and learning will not be evident (Allison et al., 2011).

Flexibility. Flexibility is the sixth second-order change responsibility with an effect size of .28 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .28, the strength of the effect size is small (Salkind, 2014). Leaders having Flexibility in their roles allows the leader to adapt to needs in varying situations (Marzano et al., 2005). Second-order change requires Flexibility due to the ever-changing arena of education. The leader who exhibits Flexibility is comfortable with other people's opinions and some dissent among staff, including understanding when the decision must be made by the leader or when to take a nondirective stance on an issue (Marzano et al., 2005). Administrators must also be flexible in their practices to adjust to being more likely to create an innovative and collaborative culture (Fullan, 2014; Ross & Cozzens, 2016). Additionally, principals must also see Flexibility in the way they deliver a mandate or change (Bhengu & Myende, 2016). Bhengu and Myende's (2016) study found principals who continuously look at how they need to implement flexible strategies in their building were more successful.

Ideals/Beliefs. The seventh second-order change responsibility is Ideals/Beliefs with an effect size of .22 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .22, the strength of the effect size is small (Salkind, 2014). To effectively lead, a leader must have a firm belief about schools, teaching, and learning as the beliefs of the principal should be shared openly and without an ulterior motive (Connors, 2014). Leaders must also be able to communicate the Ideals/Beliefs to staff and demonstrate behaviors which support the beliefs (Marzano et al., 2005). Davis and Leon, (2014)

contend a leader must brand themselves to continually move the organization forward in times of turbulence in education. First, leaders must have a set of beliefs they understand and are able to represent through their leadership and action (Davis & Leon, 2014). The beliefs must be beliefs which can move the organization forward as required in second-order change (Davis & Leon, 2014). Leaders must also use the set of beliefs to encourage and motivate staff to carry out the belief system and for this to be successful the leader must also recognize divides in the belief systems of staff within their building and understand how to address any divides to bring cohesiveness to the belief system of the entire school. Leaders often have the most difficulty managing values than it is things (Kotter, 2012).

Among the beliefs must be a clear target for the school as Weigel and Jones (2015) contend it is not the goal itself but rather having a goal and focusing on it. Understanding the goal and focusing on the procedures and practices of the school to ensure all areas align with the target is important for the school leader (Weigel & Jones, 2015). Leaders must have a growth mindset to continue to strive for their ideals without quitting (Allison et al., 2011). Having a growth mindset allows leaders to continue to work toward the ideals and beliefs they have determined to be best for the school even during times of change and challenge (Allison et al., 2011).

Leadership Responsibilities Challenged by Second-order Change. While determining which Leadership Responsibilities can bring about second-order change, the leader must also focus on a set of responsibilities Marzano's (2005) meta-analysis identified as negatively affected by second-order change. The second-order change responsibilities include: culture, communication, order, and input (Marzano et al., 2005).

The effect size of the four responsibilities negatively impacted by second-order change range from .23-.25, which places the responsibilities in the small effect size category (Marzano et al., 2005). A departure from the normal way of doing business, can cause some uneasiness when it comes to the four responsibilities negatively impacted by second-order change. "It is important to emphasize the fact that the perceptions regarding these four responsibilities are just that – perceptions. For those who hold these perceptions however, they are reality"(Marzano et al., 2005 p. 121). The leader needs to exercise a high degree of comfort with resistance during change and create the right leadership team to address the resistance (Marzano et al., 2005; Pautz & Sadera, 2017). Significant change is hard and often leads to pushing on with an initiative without the approval of the entire staff. Waiting for the entire staff to buy-in would amount to losing time implementing practices good for student outcomes Reeves, 2016). Rogers' (2003) research finds 40% of people in an organization are considered laggards or late adopters when it comes to change initiatives. Leaders, understanding a large part of a population will view change less positively than others, must work to take the push back which is sure to come and create an understanding around the vision of change to continue to move the initiatives forward (Reeves, 2016).

Culture. Culture is the first responsibility which is negatively affected by second-order change and has an effect size of .25. This shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). A school's culture, beliefs, values, and feelings, are an area which school leaders have a duty to influence through their actions (Marzano et al., 2005). Stein (2016) identifies

four areas influencing culture include staff morale, student behavior, safety, common loyalty, and parental support. Creating the right culture in a school leads to teachers willing to work hard to ensure the success of their students (Bambrick-Santoyo & Peiser, 2012). Marzano et al. (2005), describe culture building as encouraging cohesion is the result of staff knowing the leader is focused on their well-being and the leader creates a purpose and vision for the school which involves all staff. Effective school leaders must bring all staff with varying views and personalities together to function as one.

The leader is not the only contributor to the culture of a school, but has the greatest impact (Sanfelippo & Sinanis, 2016). The traits of a leader can create a positive or negative culture. "A staid, arrogant, or incompetent manager will perpetuate a negative culture. A confident, informed, and compassionate instructional lead learner will propagate a positive culture" (Sanfelippo & Sinanis, 2016, p. 34) Understanding the impact on culture creates a responsibility for the leader to understand and take seriously in their role in developing the right culture (Sanfelippo & Sinanis, 2016). Nappi (2019) contends school leaders are responsible for the creation of the teacher work environment for if the culture created is positive and collaborative it will positively influence the retention of teachers.

Schein's (1996) work on culture identifies assumptions not always considered which can be impacted by change.

> Norms become a fairly visible manifestation of these assumptions, but it is important to remember that behind the norms lies this deeper taken-for-granted set of assumptions that most members of a culture never question or examine. The

> members of a culture are not even aware of their own culture until they encounter a different one (Schein, 1996, p. 236).

The members of a group value the steadiness culture gives the team, and the value can make changing culture hard (Schein, 1996). Assistant principals are part of the membership team, therefore can be crucial in ensuring the culture stays intact and is communicated to all parties (Browne-Ferrigno & Bjork, 2018).

Communication. Communication is the second responsibility negatively affected by second-order change and is key for leadership success (Marzano et al., 2005). The effect size of communication is .23 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .23, the strength of the effect size is small (Salkind, 2014). The principal must be equally adept at sharing and gathering information as listening to the concerns, suggestions, and needs of students, staff and stakeholders are characteristic of an effective principal (Cotton, 2003). Open and honest communication is needed to achieve and sustain success in schools (Graham, 2018). Effective leaders seek to communicate with staff as often as possible, asking questions, and sharing information (Connors, 2000), as open communication can help increase the buy-in for staff members. When staff members feel able to candidly dialogue with school leadership without the fear of being reprimanded, staff are compelled to ensure success within the school (Brown, Finch, MacGregor, & Watson, 2012; Senge, 1990).

Communication is central to the culture of a school. If the leader is consistent and clear in communicating the leader provides transparency to all stakeholders (Sanfileppo & Sinanis, 2016. The leader must be genuine in the way information is delivered to

everyone to have a positive effect (Sanfileppo & Sinanis, 2016. It is also important parents and staff have continuous access to pertinent and relevant information involving details of the building as such access builds inclusivity with the community. (Sanfileppo & Sinanis, 2016)

Communicating the change vision is one of the eight stages Kotter (2012) outlines in his work *Leading Change.* The elements Kotter (2012) outlines to create communication to support a change initiative include simplicity, metaphor, multiple forums, repetition, leadership by example, explanation of seeming inconsistencies, and give-and-take. When a leader fails in any of the steps, the initiative the leader is pushing is often hurt (Kotter, 2012).

Order. The third Leadership Responsibility negatively affected by second order change is Order (Marzano et al., 2005). Order has an effect size of .25 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). Even though much has been written about the evolving role of the school leader to include instructional leadership, the leader still has to contend with the management duties. A leader who carrying the responsibility of order establishes and enforces structures, rules, and procedures to ensure the day-to-day operations of the building are met (Marzano et al., 2005). Cotton (2003) reports maintaining a safe and orderly school atmosphere is a central element of leadership effectiveness since such tasks the leader can delegate to members of the leadership team but must continue to monitor (Fullan, 2014). If the order is ignored, it can lead to questions about the safety of the school and the effectiveness of the leadership. A consistent plan by school leaders to

recognize disruptions in the order of the running of the school and how leaders can address those issues must be present, as such a plan will increase parents' trust in the school (Rinehart & Alcorn, 2019).

Teachers rate the instructional leadership of a principal who maintains order higher than principals who do not (Sebastian, Allensworth, & Huang, 2016). When the school is seen as safe by teachers, the teachers view the principal as a strong instructional leader. Order in the climate allows teachers to do work impacting student outcomes (Sebastian et al., 2016). Keeping order includes not only the safety of the environment but also procedures such as scheduling, limiting distractions to instruction, and classroom setup (Nappi, 2019).

Input. Input is the fourth Leadership Responsibility negatively affected by second-order change and has an effect size of .25 which shows a positive relationship, as the leadership skill increases, so does the student achievement (Marzano et al., 2005). With an effect size of .25, the strength of the effect size is small (Salkind, 2014). Input is the responsibility which Marzano et al. (2005) describe as building a team by giving staff opportunities to be involved in making decisions and developing school policies. Leaders cannot get results alone (Jensen et al., 2016) and must empower teams to not only make decisions but also give critical feedback when needed (Kirtman, 2014). "When teams are truly learning, not only are they producing extraordinary results, but the individual members are growing more rapidly than could have occurred otherwise (Senge, 1990, p.10)." Teachers identified their input as important to their job satisfaction, thus, the ability to give input gives the feeling of being heard and creates a shared responsibility for student learning (Brown et al., 2012).

Input on student learning by teachers is also key to the success of instructional programs. The Center on International Education Benchmarking's 2016 report *Beyond PD,* outlines the development of professional learning by the world's top-ranking systems. Within the top-ranking systems, a focus on teachers developing other teachers and the development of leadership teams to take on the professional learning is evident (Jensen et al., 2016). Lack of input from teachers leads to a failure in school reform (Sebastian et al., 2016). Leaders develop shared leadership by collaborating with teachers on both instructional and managerial tasks as such collaboration moves programs essential to student outcomes and the success of schools forward with more momentum than if the leader fails to seek input (Sebastian et al., 2016).

"In most cases, principals who try to raise student achievement through their efforts alone find that they're not only physically and mentally exhausted, but that they've also lost the efficacy needed to succeed," (Sussman, 2018, p. 33). Input must be gathered by a leadership team driven by the principal to make efforts (Sussman, 2018). Principals must capitalize on the talents of their teams to maximize strengths and distribute the workload (Sussman, 2018).

When considering second-order change is a dramatic departure from the norm, a leader whose focus is on second-order change might find some staff holding responsibilities in a negative light. Fullan (2001) describes as implementation dips. "Effective leaders have the right kinds of sensitivity to implementation. They know that change is a process, not an event. They don't panic when things don't go smoothly during the first year of undertaking a major innovation or new direction (Fullan, 2001, p. 40-41).

The leader cannot avoid responsibilities but rather must implement strategies to mitigate the negative (Fullan, 2001; Marzano, 2005).

Enacting change requires leaders to have the skills necessary to carry out the second-order change responsibilities and be aware of the negatively affected responsibilities. Marzano (2005) contends the most proactive approach a leader can take to mitigate is to engage leadership teams focus on the responsibilities. An obligation of prinicipal preparation programs and district professional development is to provide training to principals and assistant principals (Graham, 2018).

Preparing Principals for Change Leadership

To best utilize the Leadership Responsibilities, we must properly prepare leaders (Stein, 2016; Yavus & Robinson, 2018). Principals lose efficacy in their abilities based on their capability to manage all aspects the position now requires with managerial and instructional responsibilities (McBrayer, et al., 2018). With increasing demands, principals are leaving at a rate of nearly 20% per year (Miller, 2013). The statistics are even higher for leaders of troubled schools as the rate principals leave troubled schools are 30% leaving the first year and 50% in the first three years (Culpepper, 2016). When turnover occurs in a school, often a disruption to any meaningful change occurs (Mongillo, 2017).

Previous to changes brought about by No Child Left Behind and then subsequently the Every Student Succeeds Act, were focused on the managerial side of the principal position with little emphasis placed on leading instruction (Gray & Lewis, 2013; Stein, 2016; Young, Winn, & Reedy, 2017). Previously principal preparation programs have been focused on the management of schools, not the increased

accountability for principals to have a strong ability to advance student learning as an instructional leader (Boyland, Lehman, & Sriver, 2015). Most traditional programs for school leadership are at four-year colleges where coursework is delivered in a classroom setting prior to the participant engaging in administrative work (Nelson, de la Colina, & Boone, 2008). This traditional structure has met criticism for not preparing principals for the rigor of their current job realities as Levine (2005) asserted university-based programs are subpar due to the lack of rigor in admission standards, poor quality coursework, and offering of less rigorous degrees to be completed quickly.

Instructional leadership has traditionally been taught in a classroom setting. Along with an increase in developing the leaders' instructional expertise, creating programs providing aspiring leaders with the tools necessary to collect, analyze, and utilize data to improve teachers' practice and therefore, improve student achievement is also necessary (Young et al., 2017). Studies into preparation programs identify a need to implement a variety of policies to enact a change in the development of leaders. An important piece needed to increase partnerships between school districts and university programs (Davis, 2014 Devin, Augustine-Shaw, & Hachiya, 2016; Guerra, Zamora, Hernandez, & Menchaca, 2017; Oliver, Gordon, & Oliver, 2018)

The Wallace Foundation (Davis, 2014) conducted extensive research on principal preparation programs. The work was conducted to gain an understanding of why the programs were not successful. The Wallace Foundation reported the following needs for traditional programs: redesign of preparation programs to include the job realities of school leaders, a strong connection between districts and the university programs, and support by states to ensure programs are high quality (2016).

The needs of school districts differ depending on location, demographics, and community expectations. To meet the specific needs of a district, more successful preparation programs are working to ensure a strong collaboration between the program and districts is present (Devin, Augustine-Shaw, & Hachiya, 2016; Davis, 2014 Guerra et al., 2017). Programs where growing leaders from within allows prospective leaders the opportunity to apply concepts in the work setting (Devin, Augustine-Shaw, & Hachiya, 2016). As the students apply their knowledge within their work setting, students are given the opportunity to see the complexities of their district while the district is given an extended amount of time to observe potential leaders (Devin, Augustine-Shaw, & Hachiya, 2016). Palmer, Almager, and Valle (2019) found having a job-embedded principal intern program, produced leaders ready to lead at the completion of the program.

When looking at the most successful education systems in the world, you find few have traditionally offered a specialized training program. However, the exception is Singapore (NCEE, 2020). The preparation of principals in Singapore is very structured and requires a six-month training period including coursework, clinical practice, and mentorship . The program is structured to involve mentorship and shadowing under principals identified by the Ministry of Education for their leadership qualities and facilitated by a member of the National Institute of Education (Tucker, 2011; NCEE, 2020).

Another new approach to ensure school leaders are properly prepared is a program highlighted in research by Devin, Augustine-Shaw, and Hachiya (2016). The research centers around a program at Kansas State University and the program is a

partnership academy between the university and the school district (Devin et al., 2016). The preparation program allows a mentor from the district, who is normally a building principal, to increase the students' understanding of how coursework applies to the everyday workings of the district (Devin et al., 2016). The program integrates McRel's (2005) 21 Leadership Responsibilities as a fluid part of the model as the field experience is woven throughout the two-year program, therefore, giving the students a chance to practice the skills in the authentic setting of their own district. Dodson's (2015) research findings suggest principals rank field experience and the length of time spent with field experience as crucial in how they rank their preparedness for the principalship. The principals in the study also indicated a desire to participate in field experiences side-by-side with a principal rather than observing from the sidelines (Dodson, 2015).

Subsequent research by the Wallace Foundations outlined important policies states could enact to support leadership preparation programs aimed at developing highly effective leaders (2016). States can help programs by selectively granting accreditation to university programs and ensuring principal certification is given to highly qualified candidates (Davis, 2014 Davis & Hammond, 2012). States also have the leverage of policy-making and it is important states use leverage to ensure policies around both preparation programs and certification are centered around what research is showing as most beneficial for school leaders (Davis, 2014. On the contrary, the research of Grissom, Mitani, and Woo (2018) noted there are challenges in determining success rates of principals from specific programs. The programs they studied did not have a consistent success or failure rate among the graduates but did contend principals who were first assistant principals had an extra layer of on the job training (Grissom et al., 2018).

Alabama worked to establish a program to create instructional leaders due to an increasing number of schools not meeting adequate yearly progress (Gray & Lewis, 2013). First, the program sought to create a more rigorous application process to truly admit high-quality aspiring administrators and the program focused on creating a plan with local school districts (Gray & Lewis, 2013). The program required a full semester of internship within a school and the school districts would pay for a substitute, so the aspiring administrator could work full time in an administrative role for a semester. In addition to the capstone project, the program provided mentor training for the principals with whom the internship participants would be working under (Gray & Lewis, 2013). Gray and Lewis (2013) found an evaluation of this new system.

> The most effective way to train instructional leaders is through extended assignments in schools where they will share the intensity of the principal's day and the complexities and rewards of leadership that attend to working with students, teachers, and the school's community (p. 149).

Successful preparation programs use on the job clinical training to ensure future leaders can practice theory in real-life situations (Niewenhuizen & Brooks, 2013). Utilizing mentorship, pipelines, and extended time in field experience in better prepared leaders (Niewenhuizen & Brooks, 2013). The preparation to transition from assistant to principal is a seemingly ambiguous area as university programs do not focus on the roles which assistants carry out in day-to-day responsibilities, but rather on the duties of the principal (Niewenhuizen & Brooks, 2013).

Assistant Principal as Pathway Toward Principal Preparation.

The assistant principalship provides a level of on the job training (Grisson, Mitani, & Woo, 2019). May's (2016) research on the assistant principal as preparation for the principalship found both assistant principals and principals determine the largest influence on preparation for the role of principal comes from the sitting principal and the mentorship of the assistant. Utilizing the principal to identify and encourage the strengths of the assistant principal is important in creating a leader ready for success (Morgan, 2018). A principal's influence reflects the importance of professional development to effectively mentor and support the assistant in gaining necessary leadership skills (May, 2016; Searby et al., 2017). Reich (2012, p.77) explained,

> Moreover, the assistant principalship should be viewed as an incubator, encompassing the myriad of roles and responsibilities of the principal, but have the opportunities to use the principal as a sounding board in a somewhat protective environment. With a strong mentor as the principal, who is able to see the bigger picture, this is a possibility.

Assistant principals' success and satisfaction largely depend on the opportunities they are given to participate in all aspects of school leadership from instructional practices to school safety (Niewenhuizen et al., 2013).

Assistant principals report receiving support from their principals is the most integral part of preparing them for a future leadership role, though admittedly the practice of support by principals varies greatly from building to building (May, 2016). Allowing assistants to gain experience in the same leadership skills as the principal, could provide the exposure and development needed to help transition into the role (May, 2016). Schulz

et al., (2016) reported a difference between how principals and assistant principals practiced instructional leadership exists. As one of the urgent needs of an educational leader, instructional leadership is a skill which assistant principals need to develop to transition smoothly into the role of principal (Schulz, 2016). Having training procedures set for the assistant principal role could help ensure assistant principals are gaining the skills needed (McDaniel, 2017). Professional development with a focus on instructional leadership is needed to support assistant principals in their current role and prepare them for future leadership roles (Searby et al., 2017).

The role of the assistant principal is ever-changing and ambiguous (Mitchell, Armstrong, & Hands, 2017). Current assistant principals reported spending the majority of time on five of the 21 Leadership Responsibilities: discipline, curriculum and instruction, communication, relationships, and Visibility (Militello, Fusarelli, Mattingly, & Warren, 2015; Wead, 2016). While the five responsibilities is where the majority of time is allocated, the five responsibilities are not a comprehensive list of duties. The responsibilities each assistant performs is usually up to the principal and subject to change as the principal changes (Militello et al., 2015; Mitchell et al., 2017).

Morgan's (2018) study had findings in line with previously mentioned research. Principals are the main determinant of the roles carried out by the assistant principal (Morgan, 2018). Morgan's (2018) study reported a lack of self-efficacy and practice in the areas of instructional leadership and school improvement. The study also found an inconsistency between responsibilities the assistant carried out and their view on the importance of the responsibilities (Morgan, 2018). The inconsistency of the roles and the

lack of practice in the areas crucial to leadership indicates a lack of mentoring by the principal (Morgan, 2018).

The vast and ever-changing roles of the assistant principal can lead to insecurities within the position (Mitchell, et al., 2017). With the responsibilities assigned left up to the supervisor, tasks are often outside of assistant principals' areas of strength (Mitchell, et al., 2017). As former teachers who had complete control over their own classroom, assistant principals often struggle when faced with making sure decisions align with the principal (Mitchell et al., 2017). One area of particular vulnerability is instructional leadership but when asked to rank the Leadership Responsibilities, curriculum and instruction knowledge was in the top three, but assistants noted the difficulty of having extensive knowledge in the area due to its breadth (Militello et al., 2015). Managerial roles often overshadow instructional responsibilities, but assistant principals must be viewed as a part of the instructional team of a building and not just a disciplinarian and manager (VanTuyle, 2018). An emphasis on professional development which includes instructional leadership is important to prepare the assistant (Searby et al., 2017). Workload demands are often overwhelming and time to complete all work required is difficult (Barnett, Shoho, & Oleszewski, 2012). Within the assistant principal position, constant conflict, whether with student discipline, attendance matters, or parents is present. Fortunately, more experienced assistants see the need to develop professional networks to garner support for the difficult tasks and challenges faced (Barnett, Shoho, & Oleszewski, 2012).

The assistant principal position could be employed to follow Marzano's (2005) recommendation of utilizing the leadership team to develop the responsibilities which are

often hurt during second-order change. The principal determines the roles and responsibilities of the assistant principal. Proactively seeking to engage assistant principals in activities supporting culture, communication, order, and input could assist the principal in maintaining a positive culture while guiding second-order change.

Summary

This chapter was an overview of the literature surrounding the role of the principal as a change agent, how the 21 Leadership Responsibilities affect second-order change, and the role of the assistant principal. The need for education reform puts pressure on school leaders to enact second-order change. In order for the change to take place, the leader must actively engage in the following Leadership Responsibilities found to support second-order change: 1. knowledge of curriculum, instruction and assessment, 2. optimizer, 3. intellectual stimulation, 4. change agent, 5. monitoring/evaluating, 6. Flexibility, and 7. Ideals/Beliefs (Marzano et al., 2005). While focused on the responsibilities, a need for the leadership team to ensure the Leadership Responsibilities negatively impacted by second-order change continue to be a focus. Thus, the need to also study the role and preparation of the assistant principal to take on those roles was necessary. Chapter three describes the methodology used to conduct this study, how the study was designed, and how the data was analyzed. Chapter four is a report of the analysis of the data. Finally, chapter five is the findings and recommendations of the researcher.

Chapter Three

Research Design and Methodology

Introduction

The purpose of this causal-comparative study was to compare the utilization of seven of Marzano's 21 Leadership Responsibilities related to second-order change and four responsibilities which are negatively impacted during second-order change, by elementary assistant principals in Missouri with less than three years of experience with assistant principals with three years or more experience. The independent variable is defined as assistant principals in Missouri with less than three years of experience and assistant principals in Missouri with three or more years of experience. The dependent variable is generally defined as the utilization of the second-order Leadership Responsibilities identified by Marzano et al. (2005) and the four Leadership Responsibilities which are negatively impacted by second-order change. The four responsibilities as defined by Marzano et al. (2005) include culture, communication, order, and input.

Understanding the roles of assistant principals is important for two reasons. One reason is due to an assistant's likely succession to become the principal as the instability of a leader is detrimental to student outcomes. As a successor to the role of head leader, the assistant could benefit from experience in the 21 Leadership Responsibilities (Marzano et al., 2005). The second reason understanding the role of an assistant principal is important is the assistant principal is part of the school leadership team. As part of the team, the assistant principal has an impact on the outcomes of the building. Utilizing the skills outlined by Marzano et al. (2005) can aid an assistant's input as part of the team.

To examine assistant principals' utilization of the 21 Leadership Responsibilities (Marzano et al., 2005), the researcher selected a quantitative study. For this chapter the researcher states the research questions and null hypothesis used for the study. The next section describes the research setting, participant selections, and procedures for the study. The chapter also centers on the research design, instrumentation, and data analysis and ends with a summary of the methodology the researcher planned for the study.

Research Questions

1. What is the difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?
2. What is the difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?

Null Hypotheses

1. There will be no statistically significant difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience.
2. There will be no statistically significant difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an

assistant principal with less than three years of experience and an assistant principal with three or more years of experience

Participants

The participants for this research study were elementary assistant principals in the state of Missouri. Participant names and email addresses were downloaded from the Missouri Department of Elementary and Secondary Education (DESE) open-access website. According to the DESE Missouri School Directory for the 2019-2020 school year, there were 429 elementary assistant principals representing 1,229 elementary buildings in the state of Missouri. The directory is published by the Department of Elementary and Secondary Education. The data published is core data gathered from all public schools in the state of Missouri. For the purpose of this study, elementary was defined as any school identified as an elementary by DESE. The assistant principals listed in the directory are certified administrators in the State of Missouri and hold the position of elementary assistant principal at a Missouri Public School.

The emails and names gathered were uploaded into Question Pro software. The researcher stored the list on a password protected device. The researcher, using the survey link from Question Pro, emailed each assistant principal. Participants were ensured confidentiality and all information was kept secure by QuestionPro and the researcher. Ensuring confidentiality and security of the information was accomplished due to safeguards in place by QuestionPro with access to the data only granted to the researcher.

Selection and Sampling

Using an open-access database on the DESE website, the researcher compiled a list of all public elementary schools in the state of Missouri. A list of names and email

addresses for elementary assistant principals was then taken from the data obtained. The sampling was non-random and purposive with invitations for participation sent to all public elementary school assistant principals in the state of Missouri to reach a large number of potential participants. In the demographic section, a question separated participants into two groups. The first group was assistant principals with three or less years of experience and the second group was assistant principals with more than three years of experience. The same survey was given to each group to allow for accurate data comparison. The survey was limited to public schools due to the accessibility of contact information and a small number of assistant principals in private schools. G*Power statistical software was used to determine a sample size (Faul, Erdfelder, Lang, & Buchner, 2007). Using an alpha level of .5 and an effect size of .8 for a one-tail *t*-test determined a sample size of 51 is needed for each group for a total of 102. Both research questions used an Independent Samples *t*-test to compare the differences between the two groups. The two groups were based on years of experience, with one group having three or less years of experience and the other group having more than three years of experience as an assistant principal.

Survey responses were collected using QuestionPro and were void of personal identifying information about the respondent or school district. QuestionPro software has built-in safeguards which protect the privacy and confidentiality of respondents. The account with QuestionPro was only accessible by the researcher, who kept all gathered data on a password protected device. A one-month timeline was outlined to complete the distribution and data collection from the survey. The initial questionnaire was sent to Missouri elementary assistant principals with a follow-up reminder sent one week later.

Survey respondents were offered a copy of the results of the research, upon request, in return for completing the survey.

Procedures

In accordance with the guidelines set by Southwest Baptist University in regard to the protection of human participants, a request for review was submitted to the Research Review Board (RRB) for approval to survey elementary assistant principals. Once the approval was received from the RRB, the researcher uploaded the survey and list of elementary assistant principals' names and email addresses into QuestionPro. The researcher downloaded the names and emails of the elementary assistant principals from the DESE (2020) open-access database which is a compilation of data gathered from public schools in the state of Missouri and housed on the Department of Elementary and Secondary Education website. The survey was then disseminated to the participants with a letter requesting participation (Appendix B). The first question of the survey asked for participants' consent. The survey sent was an existing survey created by Dr. Kerry Schindler and used with permission. The survey utilized is titled *Assistant Principal Perceptions of Leadership Responsibilities* (Schindler, 2012) Permission to use the survey instrument was given by Dr. Kerry Schindler. A letter documenting permission is included in the appendices (Appendix A). Confidentiality was ensured by utilizing Question Pro software with built-in safeguards protecting the privacy and confidentiality of respondents. The account with Question Pro was only accessible by the researcher.

The researcher set a four-week timeline for completion of the survey. The original request to complete the survey was sent with a two-week deadline. After two weeks, the research sent a follow-up email to the assistant principals who had not yet responded,

again asking for completion of the survey (Appendix D). At the end of the four-week timeline, the data received was exported to Excel for data cleaning and then into SPSS for analysis.

Research Setting

Public elementary schools across the state of Missouri were utilized to identify assistant principals for this research. The state of Missouri consists of 114 counties with a population of approximately 6,126.452. The percent of the population considered school-aged was 16.5. Enrollment for the 2019-2020 school year was 881,258 students. The demographics report demonstrated 50.1% of students qualified for free or reduced lunches. The student population was 2.1% Asian, 15.6% black, 6.7% Hispanic, .4% Indian, 4.3% multi-race, .3% pacific islander, and 70.7% white. There are 1,229 elementary schools in 518 districts across rural, urban, and suburban communities in the state of Missouri. Of those schools, 429 assistant principals were reported.

Research Design

The purpose of this causal comparative study was to compare differences in utilization of the Leadership Responsibilities defined by Marzano et al. (2005) between assistant principals with three or more years of experience and assistant principals with less than three years of experience. The researcher examined the difference in the utilization of the seven Leadership Responsibilities supporting second-order change. In addition, the researcher also examined the difference in the utilization of the four Leadership Responsibilities Marzano et al., (2005) identified as being negatively impacted by second-order change. To measure utilization of the Leadership Responsibilities, the researcher used a survey instrument with a Likert-scale. The study

included non-experimental research with the researcher using a survey to compare two groups. Quantitative studies are appropriate when research involves the numerical measurement and analysis of variables normally using an instrument (Creswell, 2009). Quantitative research is research conducted using numerical data, larger sample size, and relies on statistical procedures for analysis (Mills & Gay, 2018). In this study, the independent variable assigns research participants into two groups based on the number of years of experience as assistant principals. To measure the dependent variables, the sum of the Likert responses to the 21 statements representing the Leadership Responsibilities tied to second-order change were tallied. In addition, the sum of the Likert scale responses to the 12 statements related to the four Leadership Responsibilities Marzano reports as challenged during second-order change were also tallied.

Instrumentation

The survey utilized was titled The School Leadership Behaviors Survey (Schindler, 2012). Permission to use this instrument was given by Kerry Schindler (Appendix A). The questionnaire was developed based on the work of Marzano et al. (2005), specifically the 21 Leadership Responsibilities and their definitions. The survey contains three statements developed to assess each of the 21 Leadership Responsibilities, for a total of 63 statements for participants to respond. The respondents ranked the statements as a description of themselves as a principal. The statements used with the Likert Scale were 1 (Strongly Disagree), 2 (Somewhat Disagree), 3 (Neutral/Unknown), 4 (Somewhat Agree), and 5 (Strongly Agree). Schindler (2012) determined the validity of the instrument was determined through a pilot study of teachers and principals, along with creating behavior statements based on a thorough literature review. Reliability of the

instrument was determined by internal consistency with a sample group of 124 principals and 410 teachers. Cronbach Alpha was used to calculate and determine the principal section of the instrument had a reliability of .95. The researcher only modified the demographic section of the survey with results being obtained only from assistant principals, while the original survey was also sent to teachers to garner their perception of the leadership behaviors of their principal.

The original instrument contained three statements relating to each of the 21 Leadership Responsibilities. For the purposes of this study, the researcher desired to look at the 21 statements related to the second-order change responsibilities together and the 12 statements related to the responsibilities of culture, communication, order, and input together. The survey tool was not originally designed to group the statements into the groups desired by the researcher. Permission to group statements was given (Appendix E).

The survey was first sent to a pilot group of 25 participants who shared the characteristic of current or previous employment as an elementary assistant principal. The responses of the pilot group were used to validate the survey grouping. The survey was then delivered to the pilot participants through QuestionPro. Once received, the results were exported into Excel for data cleaning and after cleaning the data were entered into SPSS for analysis. Principal Component Analysis (PCA) was computed using SPSS. PCA is used to reduce a large number of variables down into a smaller set of principal components. For this study the smaller set of principal components were needed to determine if the variables grouped measured the desired construct with five assumptions the researcher considered. First, the researcher had to determine if the variables were on a

continuous scale. The five-point Likert-scale used was considered continuous. Second, the researcher used scatterplots to determine linear relationships between variables. The third assumption of sampling adequacy was determined using SPSS. Bartlett's test of sphericity was run in SPSS to determine if the data were suitable for reduction. The last assumption considered by the researcher was the absence of significant outliers which are also computed using SPSS. Once all assumption had been considered data was entered into SPSS and the researcher used the eigenvalue-one criterion to determine the number of components to retain. The Total Variance Explained output was run in SPSS and then analyzed. The researcher also ran Cronbach's Alpha by using the Reliability Analysis procedure in SPSS to determine consistency and reliability of the items. The output report showed the Cronbach's alpha and overall reliability coefficient for the set of variables.

Data Analysis

The Statistical Package for Social Sciences (SPSS) was used to conduct the data analysis. The analysis method was quantitative, with data from the survey used to determine principals' engagement in each of the 21 Leadership Responsibilities. The demographic data gathered and reported with the analysis included ender, size of school district, and years of experience in a role of assistant principal. The researcher chose an independent sample *t*-test for analysis which is an appropriate analysis when having two different groups to compare (Mertens, 2019). An Independent Samples *t*-test was performed to examine the differences in the utilization of second-order Leadership Responsibilities of two groups which included assistant principals with less than three years of experience and assistant principals with three or more years of experience.

Additionally, a second *t*-test was conducted to examine utilization of the four Leadership Responsibilities of two groups including assistant principals with less than three years of experience and assistant principals with three or more years of experience. The researcher utilized Excel for data cleaning, looking for missing data, and checking for consistency of responses. Assumptions to consider with an independent *t*-test include if the dependent variable is measured on a continuous scale and the independent variable consists of two independent groups. In addition, assumptions include no significant outliers, normally distributed scores, and an equal spread across the data. The standard deviation and mean were calculated for each variable. The researcher then determined if the alpha was greater or less than .05 to fail to reject then null. Determining the alpha value allowed an understanding of statistical significant difference. The researcher also determined how much of an effect the difference made using Cohen's *d*. To determine Cohen's *d,* the mean of group two was subtracted from the mean of group one and divided by the pooled standard deviations (Salkind, 2014).

Summary

Chapter Three is a brief explanation of the methodology used in this study and included two research questions and null hypotheses associated with the questions. The first question focused on assistant principals' participation in the seven second-order change responsibilities, while the second question centered on the responsibilities identified by Marzano et al. (2005) as being negatively impacted by second-order change. A *t*-test was used to identify differences between assistant principals with less than and more than three years of experience as an assistant. In addition, this chapter outlined the selection of participants, selection, and sampling procedures which allowed the

researcher to identify assistant principals in the state of Missouri. The research design, research setting, and description of the survey instrument were also included. In Chapter Four, the researcher analyzes the results of the survey and discusses the findings. In conclusion, the researcher presents findings and recommendations for future studies in Chapter Five.

CHAPTER FOUR

ANALYSIS OF THE DATA

Introduction

The purpose of this casual-comparative study was to examine Marzano's 21 leadership qualities specifically, the utilization of seven of the responsibilities related to second-order change, and how four of the responsibilities are negatively impacted during second-order change. The focus of the study compared elementary assistant principals in Missouri having less than one year of administrative/leadership experience with assistant principals having more than three years of administrative/leadership experience. The study helps fill a gap in literature regarding the roles of assistant principals.

The study used the Leadership Behaviors Survey developed by Schindler (2003) to measure the utilization of Marzano's 21 Leadership Responsibilities. The study focused on the seven second-order change responsibilities as well as the four negatively impacted by second-order change. As a part of the study, participants were asked to provide their gender, years of experience as an assistant principal, and describe characteristics of their school district. Data were collected using QuestionPro software, exported and cleaned in Excel, and finally imported into SPSS for statistical analysis. Chapter Four includes an analysis of the data and reports on the demographics and findings for each of the research questions. Chapter Four also includes a description of the pilot study, demographics, and data analysis of each research question.

Research Questions

1. What is the difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?
2. What is the difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience?

Null Hypotheses

1. There will be no statistically significant difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience.
2. There will be no statistically significant difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience.

Pilot Study

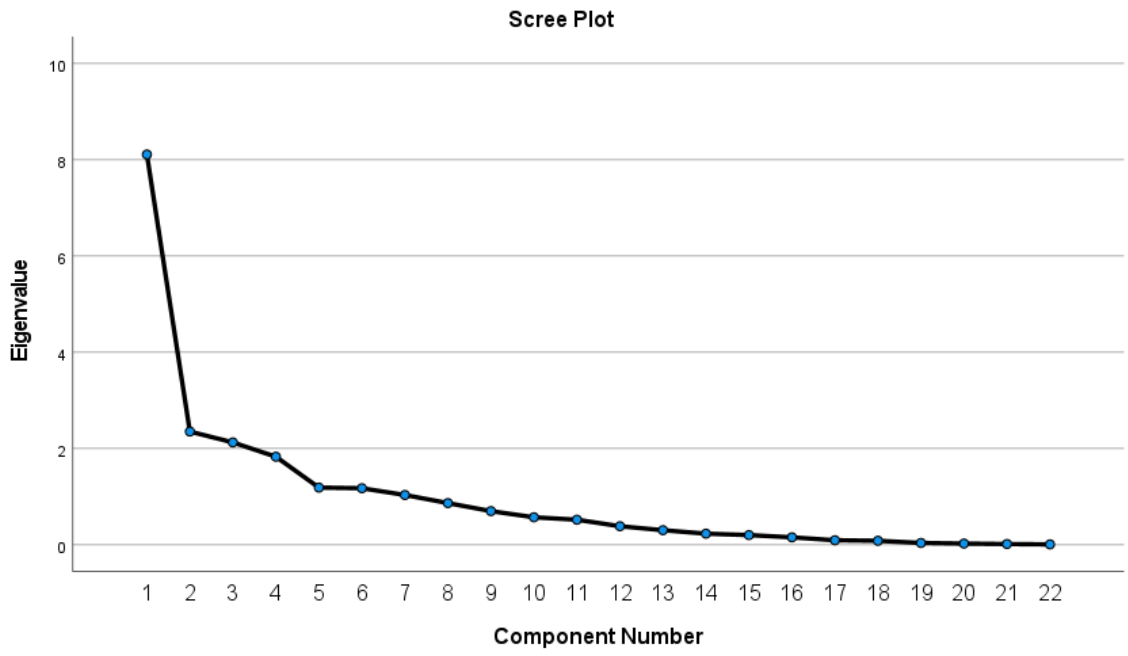
A principal component analysis (PCA) was run on a 63-question survey measuring assistant principals' utilization of the 21 Leadership Responsibilities (Marzano et al., 2005). First, the researcher ran a PCA on the 21 statements in the survey which were tied to the seven second-order change responsibilities and the PCA was computed

using SPSS. PCA is used to reduce many variables into a smaller set of principal components (Salkind, 2014). Suitability of PCA was assessed prior to analysis. The correlation matrix demonstrated all the variables had at least one correlation coefficient greater than 0.3. The overall measure of the Kaiser-Meyer-Olkin test was .553, which indicates the eligibility for factor analysis. Bartlett's Test of Sphericity indicated the data was likely factorizable with a result of $p < .001$.

The PCA revealed seven components with eigenvalues greater than one. Thus, the seven components represented 36.7%, 10.7%, 9.7%, 8.3%, 5.4%, 5.3%, and 4.7% of the total variance. Table 1 below displays the total variance explained and the scree plot in Figure 1 below indicated the seven components should be retained. Additionally, seven components met the interpretability criterion, as well.

Figure 1

Scree Plot for PCA Research Question One



The total variance of 80.8% was explained by the seven-component solution and an Equamax rotation was utilized for further interpretability. The data interpretation was consistent with the seven Leadership Responsibilities the survey intended to measure in regard to the knowledge of Curriculum and Instruction statements on each component. The components included: intellectual stimulation statements, optimizer statements, Flexibility statements, Ideals/Beliefs statements, change agent statements, and monitoring/evaluating statements. The total variance for Research Question One is explained in Table 1 below.

Table 1

Total Variance Explained Research Question One

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.108	36.856	36.856	8.108	36.856	36.856	3.323	15.103	15.103
2	2.352	10.690	47.546	2.352	10.690	47.546	2.743	12.467	27.570
3	2.126	9.664	57.210	2.126	9.664	57.210	2.697	12.259	39.829
4	1.829	8.315	65.526	1.829	8.315	65.526	2.634	11.974	51.803
5	1.187	5.397	70.923	1.187	5.397	70.923	2.512	11.420	63.223
6	1.174	5.337	76.259	1.174	5.337	76.259	2.006	9.118	72.341
7	1.034	4.700	80.959	1.034	4.700	80.959	1.896	8.618	80.959
8	0.866	3.934	84.893						
9	0.699	3.177	88.070						
10	0.571	2.593	90.663						
11	0.520	2.364	93.027						
12	0.385	1.749	94.776						
13	0.303	1.375	96.152						
14	0.231	1.048	97.200						
15	0.201	0.914	98.114						
16	0.154	0.700	98.814						
17	0.094	0.425	99.239						
18	0.083	0.376	99.615						
19	0.037	0.170	99.785						
20	0.025	0.112	99.897						
21	0.015	0.067	99.964						
22	0.008	0.036	100.000						

The researcher ran Cronbach's Alpha for each of the components tied to Research Question One. Cronbach's Alpha measures the internal consistency of a survey. Table 2 below shows the results of the Cronbach Alpha for each of the seven components.

Table 2

Cronbach's Alpha for Research Question One

Component	Cronbach's Alpha	Based on Standardized Items	N of Items
Knowledge of Curriculum	.878	.880	3
Intellectual Stimulation	.733	.751	3
Optimizer	.823	.824	4
Flexibility	.780	.810	3
Ideals/Beliefs	.752	.755	4
Change Agent	.656	.677	2
Monitoring*			1

**cannot run Cronbach's Alpha on only one item*

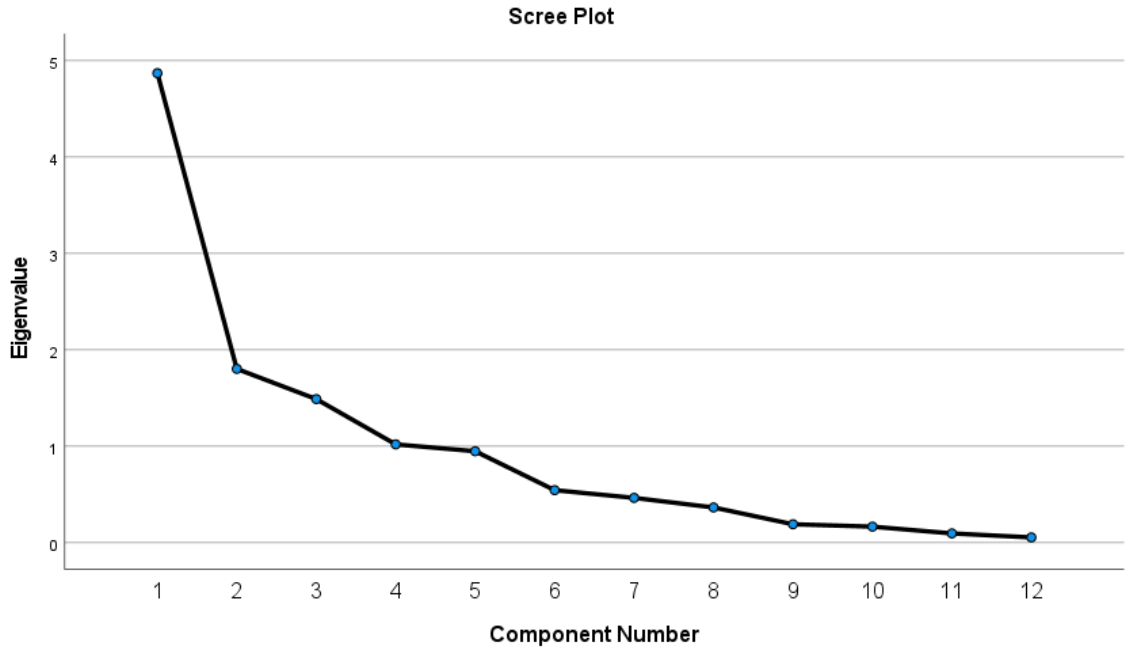
Table 2 above gives the results of the Cronbach Alpha and number of items tied to each of the components. The results from the Cronbach's Alpha ranged from .656 to .878. Cronbach's Alpha higher than .7 is considered acceptable. The Change Agent component Cronbach Alpha lower than .7.

The researcher also ran a PCA on the 12 statements in the survey linked to the four Leadership Responsibilities impacted by change. Suitability of PCA was assessed prior to analysis. The correlation matrix showed all variables had at least one correlation coefficient of greater than 0.3. The overall measure of the Kaiser-Meyer-Olkin was .674, eligible for factor analysis. Bartlett's Test of Sphericity indicated the data was likely factorizable with a result of $p < .001$.

PCA revealed four components with eigenvalues greater than one, which explained 40.6%, 15%, 12.4%, and 8.5% of the total variance. The scree plot seen in Figure 2 below indicated four components should be retained. Additionally, the PCA indicated four components met the interpretability criterion.

Figure 2

Scree Plot for PCA Research Question Two



The total variance of 76.5% was explained by the four-component solution. A varimax rotation was utilized for further interpretability. The data interpretation was consistent with the four Leadership Responsibilities the survey was intended to measure with communication statements on component one, culture statements on component two, order statements on component three, and input statements on component four. The total variance explained for Research Question Two is in Table 3 below.

Table 3

Total Variance Explained for Research Question Two

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.869	40.575	40.575	4.869	40.575	40.575	3.696	30.798	30.798
2	1.802	15.014	55.588	1.802	15.014	55.588	2.027	16.890	47.688
3	1.488	12.402	67.990	1.488	12.402	67.990	1.954	16.287	63.975
4	1.019	8.489	76.479	1.019	8.489	76.479	1.500	12.504	76.479
5	0.947	7.896	84.375						
6	0.544	4.529	88.904						
7	0.464	3.863	92.768						
8	0.364	3.035	95.803						
9	0.190	1.583	97.386						
10	0.165	1.377	98.763						
11	0.095	0.791	99.554						
12	0.054	0.446	100.00						

The researcher ran Cronbach's Alpha for each of the components tied to Research Question Two. Cronbach's Alpha measures the internal consistency of a survey. Table 4 below shows the results of the Cronbach Alpha for each of the four components.

Table 4

Cronbach's Alpha for Research Question Two

Component	Cronbach's Alpha	Based on Standardized Items	N of Items
Communication	.883	.883	4
Culture	.628	.646	3
Order	.758	.790	3
Input	.530	.529	3

Table 4 above gives the results of the Cronbach Alpha and number of items tied to each of the components for Research Question Two. The results of the Cronbach Alpha range from .530 to .883. Cronbach's Alpha higher than .7 is considered acceptable. Two of the four components tied to Research Question Two have a lower than .7 Cronbach Alpha. While the Cronbach's Alpha was not over .7, the researcher proceeded with the study.

Demographics

Participants in the survey were asked to identify his or her gender. Table 5 reflects the total number of participants who reported as male and the number who reported as female. The information was gathered as part of the demographic section of the survey.

Table 5

Participants' Gender

Participants	*N*	Percentage
Male	45	36.3%
Female	79	63.7%
Total	124	100%

As reported in Table 5, 24 total participants completed the survey. Of the 124 total participants there were 45 who reported as male and 79 reported as female. Women made up 63.7% of the total participants and men represented 36.3% of the participants.

The researcher sought to compare the difference between the assistant principal's leadership skills at the beginning of their career and as they gain years of experience. In order to gain insight into how an assistant principals leadership skill change with experience, the participants were asked to indicate the number of years they had been a practicing assistant principal. Table 6 below displays the results of the number of years in the position demographic.

Table 6

Participants' Experience

Years of experience	*N*	*Percentage*
< 3	43	35%
≥3	81	65%

In Table 6, the participants' length of time as an assistant principal is listed. Of the total 124 participants 43 (35%) of them had less than three years of experience as an assistant principal. There were 81 (65%) reported having three or more years of experience.

Data Analysis

The survey for the study was conducted over a one-month period and took an average of nine minutes to complete. The survey was emailed to elementary principals at public schools in Missouri, and requested the principal forward the survey to the assistant principal if applicable. A follow-up reminder email was sent two weeks after the initial email was sent. Out of the 429 available elementary assistant principals, a total of 124

Missouri assistant principals completed the Buchner, 2007) which indicated 102 participants or 51 in each of the years of experience groups was needed. The failure to meet the number of participants needed per group could have an impact on effect size and power.

Once the survey was closed, incomplete surveys were eliminated. The data from the completed surveys were downloaded to Microsoft Excel and were cleaned before being uploaded into SPSS software to run the needed statistical analysis. To determine if a statistically significant difference existed between assistant principals with less than three years of experience and assistant principals with three or more years of experience, both inferential and descriptive statistics were used and reported using tables. Tests used .05 as the critical value whereas if the *p*-values were less than .05 ,the null hypotheses were rejected. For Research Question One, Independent Samples *t*-tests were run for each of the seven associated Leadership Responsibilities. For Research Question Two, Independent Samples *t*-tests were run for each of the four Leadership Responsibilities associated with question two.

Research Question One and Null Hypothesis

Participant answers on the survey questions were then grouped into constructs using a Principal Component Analysis. The grouping of the constructs allowed the variables to be reduced to a smaller set of principal components related to second-order change. The smaller set of principal components related to second-order change were then used to answer Research Question One: What is the difference in the utilization of the second-order change Leadership Responsibilities as defined by Marzano et al., (2005) between an assistant principal with less than three years of experience and an assistant

principal with three or more years of experience? An Independent Samples *t*-test was run for each of the seven Leadership Responsibilities; Knowledge of Curriculum, Assessment, and Instruction, Optimizer, Intellectual Stimulation, Change Agent, Monitoring/Evaluating, Flexibility, and Ideals/Beliefs (Marzano et al., 2005).

To determine if the each of the dependent variables followed a normal distribution, a Test for Normality was performed. Table 7 below reports the findings from the Shapiro-Wilks test. A value equal to or greater than .05 indicates the data has a normal distribution.

Table 7

Shapiro-Wilks Test for Normality Research Question One

Leadership Responsibility	Years of experience	Statistic	*df*	*Sig.*
Knowledge of Curriculum, Instruction, and Assessment	< 3	.725	43	<.001
	≥ 3	.847	81	<.001
Optimizer	< 3	.216	43	<.001
	≥ 3	.166	81	<.001
Intellectual Stimulation	< 3	.864	43	<.001
	≥ 3	.945	81	<.001
Change Agent	< 3	.778	43	<.001
	≥ 3	.808	81	<.001
Monitoring and evaluating	< 3	.621	43	<.001
	≥ 3	.611	81	<.001
Flexibility	< 3	.548	43	<.001
	≥ 3	.805	81	<.001
Ideals/Beliefs	< 3	.800	43	<.001
	≥ 3	.907	81	<.001

The study had 43 participants with less than three years-experience as an assistant principal and 81 participants with three or more years-experience. The outliers were assessed by the inspection of a boxplot. The scores for the participants with less than three years of experience and those with three of more years of experience outlier not normally distributed as assessed by Shapiro-Wilks test ($p < .001$), as seen in Table 7. Additionally, homogeneity of variances, as assessed by Levene's test for equality of variances was present. Independent Samples *t*-test are robust enough to account for the few outliers and handle the normality violations.

Tables 8- 21 report on the Independent Samples *t*-tests run on each of the seven Leadership Responsibilities tied to second-order change to address Research Question One. First, an Independent Samples *t*-test was run to determine if there were differences in the utilization of the Leadership Responsibility of Knowledge of Curriculum, Assessment, and Instruction between assistant principals with less than three years of experience and assistant principals with three or more years of experience.

The results include a mean score for each of the variable groups. In addition, the standard deviation and number of participants was also reported. Table 8 displays the descriptive statistics for the Leadership Responsibility of Knowledge of Curriculum, Assessment, and Instruction.

Table 8

Descriptive Statistics for Knowledge of Curriculum, Assessment, and Instruction

Years of experience	Mean Score	*SD*	*N*
< 3	13.42	2.050	43
≥ 3	13.04	1.771	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 13.42, and *SD* = 2.05. The score for the group with more than three years of experience was *M* = 13.04, and *SD* = 1.77. The next step was to determine if a statistically significant difference between the two groups existed.

Table 9 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results include a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 9

Independent Samples Test for Knowledge of Curriculum, Assessment, and Instruction

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	1.080	122	.282	.382	.353	-3.18	1.081

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

No statistically significant difference between the two groups, *M* = 0.382, 95% CI [-3.18, 1.081], *t(122)* = 1.080, *p* = .282 was preset. Cohen's *d* was not calculated since no

statistically significant difference was present. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Intellectual Stimulation between assistant principals with less than three years of experience and assistant principals with three or more years of experience was present. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 10 provides the descriptive statistics for the Leadership Responsibility of Intellectual Stimulation.

Table 10

Descriptive Statistics for Intellectual Stimulation

Years of experience	Mean Score	*SD*	*N*
< 3	12.21	2.305	43
≥ 3	11.72	1.919	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was $M = 12.21$, and $SD = 2.31$. The score for the group with more than three years of experience was $M = 11.72$, and $SD = 1.92$. The next step was to determine if there was a statistically significant difference between the two groups.

Table11 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 11

Independent Samples Test for Intellectual Stimulation

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	1.269	122	.207	.493	.389	-.276	1.263

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 11 above reports the degrees of freedom at 122. No statistically significant difference between the two groups, $M = .493$, 95% CI[-.276, 1.263], $t(122) = 1.269$, $p = .207$ was present. Cohen's *d* was not calculated since no statistically significant difference was present. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if there were differences in the utilization of the Leadership Responsibility of Optimizer between assistant principals with less than three years of experience and assistant principals with three or more years of experience.

The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 12 displays the descriptive statistics for the Leadership Responsibility of Optimizer.

Table 12

Descriptive Statistics for Optimizer

Years of experience	Mean Score	*SD*	*N*
< 3	17.81	2.780	43
≥ 3	18.33	1.620	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 17.81 and *SD*= 2.78. The score for the group of assistant principals with more than three years of experience was *M* = 18.33, and *SD* = 1.62. The next step was to determine if a statistically significant difference between the two groups was present.

Table 13 provides the results of the Independent Samples *t*-test for Optimizer. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 13

Independent Samples Test for Optimizer

					95% *CI*	
t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
-1.315	122	.191	-.519	.395	-1.301	.262

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 13 above displays the degrees of freedom at 122. No statistically significant difference between the two groups, *M* = -0.519, 95% CI[-1.301, .262], *t(122)* = -1.315, *p*

= .191 was present. Cohen's *d* was not calculated since no statistically significant difference was present. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Flexibility between assistant principals with less than three years of experience and assistant principals with three or more years of experience. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 14 provides the descriptive statistics for the Leadership Responsibility of Flexibility.

Table 14

Descriptive Statistics for Flexibility

Years of experience	Mean Score	*SD*	*N*
< 3	13.77	1.938	43
≥ 3	13.95	1.224	81

Note. SD = standard deviation; *N* = number of sample size

The score for the group of assistant principals with less than three years of experience was $M = 13.77$, and $SD = 1.94$. The score for the group of assistant principals with more than three years of experience was $M = 13.95$, and $SD = 1.22$. The next step was to determine if a statistically significant difference between the two groups existed.

Table 15 provides the results of the Independent Samples *t*-test for Flexibility. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 15

Independent Samples Test for Flexibility

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-.644	122	.521	-.183	.285	-.746	.380

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 15 above displays the degrees of freedom at 122. No statistically significant difference between the two groups, M = -1.83, 95% CI[-.746, .380], $t(122)$ = -.644, p = .521 was present. Cohen's d was not calculated since no statistically significant difference. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Ideals/Beliefs between assistant principals with less than three years of experience and assistant principals with three or more years of experience was present. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 16 provides the descriptive statistics for the Leadership Responsibility of Ideals/Beliefs.

Table 16

Descriptive Statistics for Ideals/Beliefs

Years of experience	Mean Score	*SD*	*N*
< 3	17.21	2.587	43
≥ 3	17.68	1.716	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 17.21, and *SD*= 2.59. The score for the assistant principals with more than three years of experience was *M* = 17.68, and *SD* = 1.72. The next step was to determine if a statistically significant difference between the two groups was evident.

Table 17 displays the results of the Independent Samples *t*-test. The Independent Samples *t*-test results include a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 17

Independent Samples Test for Ideals/Beliefs

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-1.210	122	.229	-.470	.388	-1.238	.299

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 17 above provides the degrees of freedom at 122. No statistically significant difference between the two groups, *M* = -.470, 95% CI[-1.238, .299], *t(122)* = -1.210, *p* = .229 was present. Cohen's *d* was not calculated since no statistically

significant difference. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Change Agent between assistant principals with less than three years of experience and assistant principals with three or more years of experience was evident. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 18 provides the descriptive statistics for the Leadership Responsibility of Change Agent.

Table 18

Descriptive Statistics for Change Agent

Years of experience	Mean Score	*SD*	*N*
< 3	8.42	1.622	43
≥ 3	8.90	1.008	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 8.42, and *SD* = .247 The score for assistant principals with more than three years of experience was *M* = 8.90, and *SD* = .112. The next step was to determine if a statistically significant difference between the two groups was present.

Table 19 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 19

Independent Samples Test for Change Agent

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-2.041	122	.043	-.483	.237	-.951	-.014

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 19 above displays the degrees of freedom at 122. A statistically significant difference between the two groups, M = -.483, 95% CI[-.951, -.014], $t(122)$ = -2.041, p = .043 was present. The group of assistant principals with three or more years of experience had the larger value. As a result of having a statistically significant difference, the rejection of the null was indicated. Cohen's *d* was-.385 which indicated a small effect size.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Monitoring between assistant principals with less than three years of experience and assistant principals with three or more years of experience was present. The results included a mean score for each of the variable groups. Table 20 represents the descriptive statistics with standard deviation and number of participants reported.

Table 20

Descriptive Statistics for Monitoring

Years of experience	Mean Score	*SD*	*N*
< 3	4.47	.960	43
≥ 3	4.68	.520	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 4.47, and *SD* = .960. The score for the group of assistant principals with more than three years of experience was *M* = 4.68, and *SD* = .520. The next step was to determine if a statistically significant difference between the two groups was present.

Table 21 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results include a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 21

Independent Samples Test for Monitoring

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-1.612	122	.110	-.214	.133	-.477	.049

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 21 above reports the degrees of freedom at 122. No statistically significant difference between the two groups, *M* = -.214, 95% CI[-.477, .049], *t(122)* = -1.612, *p* =

.110 was evident. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

Research Question Two and Null Hypothesis

Participant answers on the questions on the survey were then grouped into another set constructs using a Principal Component Analysis. The grouping of another set of constructs allowed the variables to be reduced to a smaller set of principal components, which impacted second-order change. The smaller set of principal constructs related to second-order change were then used to answer Research Question Two: What is the difference in the utilization of the four Leadership Responsibilities challenged by second-order change between an assistant principal with less than three years of experience and an assistant principal with three or more years of experience? Independent Samples *t*-tests were conducted on the Leadership Responsibilities of Communication, Culture, Order, and Input.

To determine if the dependent variable followed a normal distribution a test for normality was performed. Table 20 below provides the findings from the Shapiro-Wilks test. A value equal to or greater than .05 indicates the data has a normal distribution. The study had 43 participants with less than three years-experience and 81 participants with three or more years-experience as an assistant principal. The outliers were assessed by the inspection of a boxplot. The scores for each outlier were not normally distributed as assessed by Shapiro Wilks test ($p < .001$) and homogeneity of variances, as assessed by Levene's test for equality of variances was indicated. Independent Samples *t*-test are robust enough to account for the few outliers and handle the normality violations. Table 22 below determines the results of the tests for normality.

Table 22

Normality Tests for Research Question Two

Leadership Responsibility	Years of experience	Statistic	*df*	*Sig.*
Communication	< 3	.725	43	<.001
	≥ 3	.847	81	<.001
Culture	< 3	.778	43	<.001
	≥ 3	.808	81	<.001
Order	< 3	.772	43	<.001
	≥ 3	.861	81	<.001
Change Agent	< 3	.778	43	<.001
	≥ 3	.808	81	<.001
Input	< 3	.810	43	<.001
	≥ 3	.894	81	<.001

Independent Samples *t*-tests were conducted to determine if differences in the utilization of the Leadership Responsibility of Communication between assistant principals with less than three years of experience and assistant principals with three or more years of experience. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was also reported. Table 23 provides the descriptive statistics for the Leadership Responsibility of Communication.

Table 23

Descriptive Statistics for Communication

Years of experience	Mean Score	*SD*	*N*
< 3	17.72	2.780	43
≥ 3	18.43	1.369	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was $M = 17.72$, and $SD = 2.780$. The score for the group with more than three

years of experience was *M* = 18.43, and *SD* = 1.369. The next step was to determine if a statistically significant difference between the two groups was present.

Table 24 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results include a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. The statistical significance was determined by the outcome.

Table 24

Independent Samples Test for Communication

					95% *CI*	
t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
-1.579	53.042	.120	-.711	.450	-1.615	.192

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 24 above reports the degrees of freedom at 53.042. No statistically significant difference between the two groups, *M* = -.711, 95% CI[-1.615, .192], *t(53.042)* = -1.579, *p* = .120 was present. Cohen's *d* was not calculated since no statistically significant difference. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine any differences in the utilization of the Leadership Responsibility of Culture between assistant principals with less than three years of experience and assistant principals with three or more years of experience. The results include a mean score for each of the variable groups. In addition, the standard deviation and number of participants was also reported. Table 25 displays the descriptive statistics for the Leadership Responsibility of Culture.

Table 25

Descriptive Statistics for Culture

Years of experience	Mean Score	*SD*	*N*
< 3	13.67	2.067	43
≥ 3	14.04	1.078	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was *M* = 13.67, and *SD* =2.067. The score for the group of assistant principals with more than three years of experience was *M* = 14.04, and *SD* = 1.078. The next step was to determine if a statistically significant difference between the two groups existed.

Table 26 provides the results of the Independent Samples *t*-test for Culture. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 26

Independent Samples Test for Culture

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-1.075	54.399	.287	-.363	.337	-1.039	.313

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 26 provides the degrees of freedom at 54.399. No statistically significant difference between the two groups, *M* = -.363, 95% CI [-1.039, .313] *t* = -1.075, *p* = .287

was present. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Order between assistant principals with less than three years of experience and assistant principals with three or more years of experience existed. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was reported. Table 27 provides descriptive statistics for the Leadership Responsibility of Order.

Table 27

Descriptive Statistics for Order

Years of experience	Mean Score	*SD*	*N*
< 3	13.21	2.144	43
≥ 3	13.56	1.440	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was $M = 13.21$, and $SD = 2.144$. The score for the group of assistant principals with more than three years of experience was $M = 13.56$, and $SD = 1.440$. The next step was to determine if a statistically significant difference between the two groups was present.

Table 28 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 28

Independent Samples Test for Order

					95% *CI*	
	t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
	-1.070	122	.287	-.346	.324	-.987	.295

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 28 above displays the degrees of freedom at 62.647. No statistically significant difference between the two groups, M = -.346, 95% CI [-.987, .295], t = -1.070, p = .287 was present. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

An Independent Samples *t*-test was run to determine if differences in the utilization of the Leadership Responsibility of Input between assistant principals with less than three years of experience and assistant principals with three or more years of experience was present. The results included a mean score for each of the variable groups. In addition, the standard deviation and number of participants was also reported. Table 29 provides the descriptive statistics for the Leadership Responsibility of Knowledge of Curriculum, Assessment, and Instruction.

Table 29

Descriptive Statistics for Input

Years of experience	Mean Score	*SD*	*N*
< 3	8.40	1.635	43
≥ 3	8.35	1.352	81

Note. SD = standard deviation; *N* = number of sample size.

The score for the group of assistant principals with less than three years of experience was $M = 8.40$ and $SD = 1.635$. The score for the group of assistant principals with more than three years of experience was $M = 8.35$, and $SD = 1.352$. The next step was to determine if a statistically significant difference existed between the two groups.

Table 30 provides the results of the Independent Samples *t*-test. The Independent Samples *t*-test results included a mean score for each of the variable groups, *t*-statistic, significance value, and degrees of freedom. Statistical significance was then determined by the outcome.

Table 30

Independent Samples Test for Input

					95% *CI*	
t	*df*	*Sig.*	Mean difference	*SEM* difference	*LL*	*UL*
.181	122	.857	.050	.275	-.494	.593

Note. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit

Table 30 above displays the degrees of freedom at 122. No statistically significant difference between the two groups, $M = .050$, 95% CI[-.494, .593], $t(122) = 1.81$, $p = .857$ existed. Cohen's *d* was not calculated since no statistically significant difference was indicated. As a result of not having a statistically significant difference, failure to reject the null hypothesis was indicated.

Summary

Data analysis and findings of this study were reported. The researcher utilized the survey results of 124 elementary assistant principals in Missouri. Independent sample *t*-tests were run on each of the seven Leadership Responsibilities tied to second-order

change. Research Question One was analyzed first. Change Agent was the only Leadership Responsibility out of the seven found to have a statistically significant difference between assistant principals with less than three years of experience and assistant principals with three or more years of experience. For Research Question Two, Independent Samples *t*-tests were run on each of the four Leadership Responsibilities impacted by second-order change. No statistically significant difference was reported for any of the Leadership Responsibilities, thus, the null hypothesis was failed to be rejected for the second research question.

Chapter Five includes conclusions, implications for practice, and recommendations for future research on the topic of Leadership Responsibilities of assistant principals. The following chapter provides description of the data interpretation as well as considerations for possible applications of findings. Additionally, future recommendations for further study is also addressed in Chapter Five.

Chapter Five
Conclusions and Recommendations

Introduction

The purpose of this study was to examine assistant principal's utilization of Marzano's 21 leadership qualities, specifically the utilization of seven responsibilities related to second-order change and the four responsibilities negatively impacted during second-order change. A gap in the current literature regarding assistant principals and their roles and responsibilities as drivers of change was evident. Out of 429 current assistant principals in Missouri, 124 completed a survey and assisted in determining how their own practice was focused on tasks centered around second-order change. Horner and Jordon (2020) identify an importance for a leadership successor to be of high quality. When hiring, school districts often look to replace outgoing principals with leaders who can perform effectively immediately (Roza, Celio, Harvey, & Wishon, 2003). The assistant principal is a key member to consider when school districts are hiring for the principal position (Hall, Childs-Bowen, Cunningham, Pajardo, & Simeral, 2016).

Chapter five includes the findings of the data presented. In addition, the researcher presents discussions around each research question and implications of the study. Recommendations for future research on the topic of the Leadership Responsibilities of assistant principals is also presented. Chapter Five ends with a conclusion of the study.

Summary of Findings

A quantitative analysis of each of the research questions was conducted to test the corresponding null hypothesis. To measure statistical significance, an Independent

Samples *t*-test was utilized. Cohen's *d* was then calculated to measure the effect size of the differences. The research questions each had multiple parts which required an Independent Samples *t*-test for each part. The results of the analysis were used to determine if a difference in use of the Leadership Responsibilities between assistant principals with less than three years of experience and assistant principals with three or more years of experience existed.

For Research Question One, no statistically significant difference in the utilization of Leadership Responsibilities related to second-order change between assistant principals with less than three years of experience and assistant principals with more than three years of experience on six of the seven Leadership Responsibilities was evident. The results of the *t*-test for the responsibility of Change Agent showed a statistically significant difference between the two groups of assistant principals, with the higher score represented by the group of assistant principals with three or more years of experience, $M = -.483$, 95% CI[-.951, -.014], $t(122) = -2.041$, $p = .043$. The statistically significant between the two groups of participants indicated the rejection of the null hypothesis for the Leadership Responsibility of Change Agent. Cohen's *d* was -.385 which indicated a small effect size. Change Agent was the only Leadership Responsibility with a statistically significant difference indicated in the study. The results from Research Question One were inconclusive due to the inconsistency of results on each of the seven components tested.

For Research Question Two, no statistically significant difference in the utilization of the Leadership Responsibilities impacted by second-order change between assistant principals with less than three years of experience and assistant principals with

more than three years of experience existed. Independent Samples *t*-tests were conducted on the four Leadership Responsibilities impacted by second-order change; Communication, Culture, Order, and Input. None of the *t*-tests resulted in a *p* value < .05. As a result of the P value < .05, failure to reject the null hypothesis was indicated.

Research Question One Discussions

For Research Question One, the researcher failed to reject the null hypothesis. The study found no statistically significant difference between assistant principals with less than three years of experience and assistant principals with three or more years of experience in utilizing the six of the seven Leadership Responsibilities identified by Marzano (2005) as tied to second-order change existed. Only the Leadership Responsibility of Change Agent yielded a statistically significant finding, M = -.483, 95% CI[-.951, -.014], $t(122)$ = -2.041, p = .043. Cohen's d was -.385 which indicated a small effect size. A small effect size indicated a rejection of the null for the Leadership Responsibility of Change Agent. Cohen's d was-.385 which led to an inconclusive result. The findings both support and disagree with the previously reviewed literature.

Research Question One specifically addresses the Leadership Responsibilities related to second-order change. The previously reviewed literature determined change to be the greatest challenge for any organization (Reeves, 2009; Fullan, 2001; Hargreaves & Shirley, 2009). Independent Samples *t*-tests were run to determine if statistically significant differences occurred between assistant principals with less than three years of experience and assistnat principals with three or more years of experience on each of the seven Leadership Responsibilities tied to second-order change. The results identified no statistically significant difference except for the Leadership Responsibility of Change

Agent. Cronbach's Alpha was important to consider as a measure of internal reliability. Cronbach's alpha for Change Agent was .656 while the other Leadership Responsibilities had Cronbach's alpha scores above the acceptable .700. The data analysis on the Leadership Responsibility for the group of assistant principals with less than three years of experience was $M = 8.42$, and $SD = .247$. The score for the group of assistant principals with more than three years of experience was $M = 8.90$, and $SD = .112$. A statistically significant difference between the two groups within the group having three or more years of experience had higher values present, $M = -.483$, 95% CI [-.951, -.014], $t(122) = -2.041$, $p = .043$. Cohen's d was -.385 which indicated a small effect size. Higher scores by assistant principals having more experience supported the literature which shows change in education takes time. Being a Change Agent requires the leader to know and understand how to utilize the data of a school (Fullan, 2014; James-Ward & Abuyen, 2015). As a leader begins to make changes based on the data, leaders must stay the course to ensure time is given for the change to take root in the culture (Marzano et al., 2005). Change is not successful unless the change is sustained over time with consistency (Hargreaves & Shirley, 2009; Reeves, 2009; Shirley & Noble, 2016; Weston, Ferris, & Finkelstein, 2017). To bring about truly successful change, the change must also be enacted by the entire faculty and not just the leader (Fullan 2010; Reeves, 2009, 2016). A leader representing a strong change agent has spent time in the building.

The previously reviewed literature suggests time spent in on the job training creates better prepared leaders (Niewenhuizen & Brooks, 2013), which aligns with the research on Change Agents, as well (Hargreaves & Shirley, 2009; Reeves, 2009; Shirley & Noble, 2016; Weston, Ferris, & Finkelstein, 2017). Additionally, research on principal

training indicates time spent in the position is the most effective way to train instructional leaders (Gray & Lewis, 2013). However, results of this study did not indicate an increase in skills based on time in the position were impacted in all areas.

While the results of the study did not support the literature regarding leadership preparation the results do support the literature reviewed around the Leadership Responsibility of Change Agent and the assistant principal position. The role of the assistant principal is ever-changing and ambiguous (Mitchell, Armstrong, & Hands, 2017). Current assistant principals reported most spend the most time on five responsibilities: Discipline, Curriculum and Instruction, Communication, Relationships, and Visibility (Militello, Fusarelli, Mattingly, & Warren, 2015; Wead, 2016). While the Leadership Responsibilities of Discipline, Curriculum and Instruction, Communication, Relationships, and Visibility are where assistant principals spend much time, the five responsibilities are not a comprehensive list of duties. The responsibilities each assistant principal perform is usually up to the principal and subject to change as the principal changes (Militello et al., 2015; Mitchell et al., 2017).

In the review of literature, the researcher discussed the effect size of each of Marzano's (2005) Leadership Responsibilities. The seven Leadership Responsibilities addressed in Research Question One had effect sizes .28 or smaller, which indicated a small overall effect size and were considered when reviewing the results. Overall, the results of leadership research is often mixed and cannot be viewed by just this correlation, but must be considered (Marzano et al., 2005).

Consideration must also be given to the survey instrument when considering the results. When reducing the constructs by running the PCA, the results yielded seven

components with eigenvalues more than 1.0. While PCA results allowed the researcher to utilize the survey for the research, the low Eigenvalues must be mentioned when discussing the results. In the case of Research Question One, the Eigenvalues of the seven remaining components were 1.034, 1.174, 1.187, 1.1829, 2.126, 2.352, and 8.108. Four of the seven Eigenvalues were less than 2.0.

Research Question Two Discussion

For Research Question Two, the researcher failed to reject the null hypothesis. No statistically significant difference in the utilization of Leadership Responsibilities impacted by second-order change between assistant principals with less than three years of experience and assistant principals with more than three years of experience was present. The finding contradict the research of Devin, Augustine-Shaw, and Hachiya (2016), suggesting on the job training increases leadership skills.

Research Question Two specifically addresses the four Leadership Responsibilities which can be negatively impacted by second-order change and include Communication, Culture, Order, and Input. The Leadership Responsibilities are particularly important to the assistant principal as a part of the leadership team (Marzano et al., 2005; Pautz & Sadera, 2017). Second-order change represents a break from the past and is often met with resistance (Marzano et al., 2005). Taking a proactive approach to ensure the leadership team is focused on the Leadership Responsibilities which can be negatively impacted can help confirm change is accepted (Marzano et al., 2005). To address these responsibilities, Independent Samples *t*-test were run to determine if statistically significant differences occurred between assistant principals with less than three years of experience and assistant principals with three or more years' of experience

on each of the four Leadership Responsibilities negatively impacted by second-order change. The results showed no statistically significant difference were evident.

As with Research Question One, Research Question Two does not represent a consistency in scores for principals having more experience. The previously reviewed literature suggests time spent on the job, creates better prepared leaders (Niewenhuizen & Brooks, 2013; Gray & Lewis, 2013). However, the results of the Independent Samples *t*-tests of this study do not align with the findings of this research. The research also aligns with the literature discussing the ambiguity within the roles and responsibilities of the assistant principal (Mitchell, Armstrong, & Hands, 2017). The roles carried out by assistant principals is largely determined by the principal (Militello et al., 2015; Mitchell et al., 2017). The inconsistency of the role of the assistant principal and the lack of practice in the areas crucial to leadership, could attribute to the lack of statistical significance.

The uncertainty of the roles of each assistant principal could be a factor which contributed to failure to reject the null hypothesis. Research on high-performing school districts contend principals need job embedded professional development on a regular basis (Leithwood and Azah, 2017). Wong and Liu (2018) also assert new principals' professional development should be devoted to skills affecting student achievement. Assistant principals should have development focused on strategic planning, education policy implementation, leadership training, and empowering teachers (Wong and Liu, 2018). With the demands placed on school leaders to understand vast topics, professional learning opportunities should be purposefully provided (Vidal-Butler, 2017). Each participants' school district has control over the professional development which is

offered, therefore, inconsistency in knowledge could have attributed to the lack of difference between the two groups of participants.

Another point to consider was the years of experience between the two groups of participants. Less than three years of experience may not be enough for the participants to answer the survey questions with a firm knowledge of their practice with the Leadership Responsibilities. The reality of each assistants' practice might be different than their perception. In addition, the research of Branch, Hanushek, and Rivkin (2013) demonstrates the least effective principals are more likely to leave their positions within three years. A high number of assistant principals may leave quickly, and were therefore, not included in the study. Average tenure of a school principal is 3.6 years and three to seven years are needed for their impact on a school to affect student outcomes (Krasnoff, 2015). The assistant principal group from the survey with less than three years of experience may not have had time to develop the skills needed.

The results of this study might also be related to the survey instrument. When reducing the constructs by running the PCA, the results yielded four components with Eigenvalues more than 1.0. While PCA results allowed the researcher to utilize the survey for this research, the low eigenvalues should be mentioned as a possible reason why the results did not support rejection of the null hypothesis. In the case of Research Question Two, the Eigenvalues of the four remaining components were 1.019, 1.488, 1.802, and 4.869.

In the review of literature, the researcher discussed the effect size of each of Marzano's (2005) Leadership Responsibilities. The four Leadership Responsibilities addressed in Research Question Two had effect sizes .25 or smaller, which indicated

overall small effect size and were considered when reviewing the results. Research on leadership is not robust and lacking on specific leadership behaviors which effect student outcomes (Marzano et al., 2005). While Marzano et al's., (2005) research reports the calculated effect size, Marzano's team also caution against using a single correlation when reviewing the results, and allow for growth in the individual to be considered.

Implications

This study sought to add to the gap in literature surrounding the utilization of Leadership Responsibilities impacting and impacted by second-order change by assistant principals. Leading change in education is tantamount to student outcomes (Fullan, 2014; Kirtman, 2014; James-Ward & Abuyen, 2015). The study shows experienced assistant principals utilize the skill of Change Agent more than assistant principals with less experience. The entire faculty must enact the change for any change to be sustainable (Fullan 2010; Reeves, 2009, 2016). A need for professional development for assistant principals is needed to start immediately and should include embedded opportunities to utilize the Leadership Responsibility of Change Agent. With an average principal tenure of 3.6 years, (Krasnoff, 2015) time is of the essence. Ensuring assistant principals are ready to step into the role of principal is necessary as almost half of all principals report having previous experience as an assistant principal or curriculum director (Cox, Parmer, Strizek, & Thomas, 2016). Once assistant principals assume the head role as principal they must be prepared as a Change Agent to positively impact student achievement (Marzano et al., 2005). Ensuring new principals are prepared to act as Change Agents is particularly important for school districts to make note of when designing mentoring programs for new assistant principals. Additionally, ensuring principals provide assistants

on the job experience with the responsibilities shown to aid in second-order change could help ready assistant principals for succession to the principal position.

This study indicates a need to provide assistant principals with a high-quality principal preparation program. Principal preparation programs could potentially provide assistant principals the training needed to ensure the utilization of each Leadership Responsibilities. While specific assistant principal courses are not available, preparation could be tailored to involve on the job training for assistant principals. For example, Singapore has a very structured program which includes a six-month clinical practice and mentorship by principals and is approved by the Ministry of Education (NCEE, 2020). Additionally, other programs like the one at Kansas State University includes a program which integrates Marzano's (2005) Leadership Responsibilities throughout a two-year program and requires aspiring leaders to practice the Leadership Responsibilities in an authentic setting (Devin et al., 2016). Successful preparation programs use on the job clinical training to ensure future leaders apply knowledge within real-life situations (Niewenhuizen & Brooks, 2013).

This study also found the need to define the roles and responsibilities of assistant principals more clearly, which aligned with previous research on the lack of defined roles for assistant principals. Roles are often determined by the principal, vary from position to position, and often change when the principal changes (Militello et al., 2015; Mitchell et al., 2017). Assistant principals report a difference between their understanding of important roles and responsibilities and what is actually practiced. The differences among assistant principals' understanding of important roles and responsibilities when combined with the research on job embedded experience contributes to the need for additional

research in its regard to defining what assistant principals should do to gain experience and be ready to step into a principal role effectively and successfully.

Overall, the study emphasizes the need to further research in regard to developing the leadership of the assistant principal. A pipeline where the preparation program, mentorship program, and job embedded practice emphasize the Leadership Responsibilities known to create and sustain change would be beneficial. While this study did not have the findings desired by the researcher, it did impact the body of current research by adding additional urgency continue exploring the practice of appropriately training assistant principals.

Recommendations for Future Research

The following include recommendations for additional research to contribute to address the role of the assistant principal and necessary utilization of Leadership Responsibilities:

1. To gain insight into necessary training for assistant principals, this study could be replicated with the addition of demographic or open-ended questions which inquire into principal preparation program which may have been attended by the participants. Such information could help give an understanding of previous experiences and supports in place.
2. To understand the guidance each of the participants were given, future studies could explore the extent of mentorship programs each participant experienced during their work as an assistant principal.
3. A qualitative study on the utilization of the Leadership Responsibilities of assistant principals might give more insight into their practice.

4. A study seeking information from both the principal and assistant principal, who work together could add needed research on how the principal's behavior and philosophies impact the assistant's utilization of Leadership Responsibilities.

Conclusion

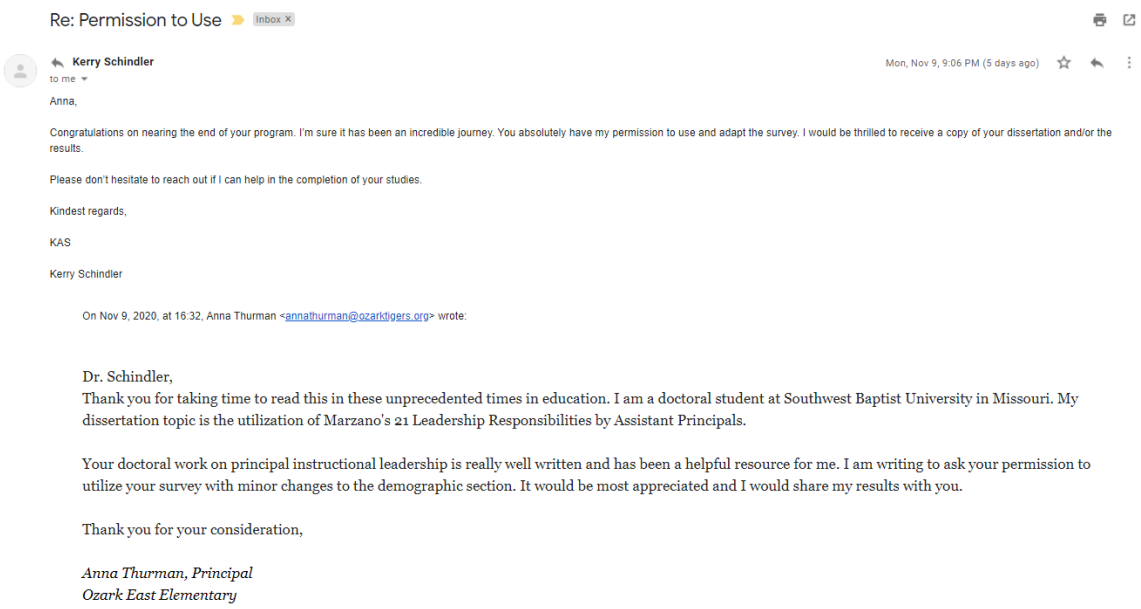
The purpose of this casual-comparative study was to examine Marzano's 21 Leadership Responsibilities, specifically the utilization of seven of the responsibilities related to second-order change and how four of the responsibilities are negatively impacted during second-order change. The focus of the study compared elementary assistant principals in Missouri with less than one year of administrative/leadership experience with assistant principals with more than three years of administrative/leadership experience. The independent variable was assistant principals in Missouri with less than three years of experience and assistant principals in Missouri with three or more years of experience. The dependent variable was defined as the utilization of the second-order Leadership Responsibilities identified by Marzano et al. (2005) and the four Leadership Responsibilities which are negatively impacted by second-order change. The study contributed to the current literature which focus on the role of the assistant principal. The findings hold implications for university preparation programs and school districts as each seek to grow assistant principals into effective principals. The study also revealed a need for continued research in the Leadership Responsibilities utilized by assistant principals.

Existing research emphasized the importance of being a Change Agent (Reeves, 2009; Fullan, 2001; Hargreaves & Shirley, 2009). In addition, the research from Marzano et al., (2002) regarding Change Agent is one of the attributes identified in which a

principal enacts to positively impact student achievement. The Change Agent Leadership Responsibility is one which takes time. Hargreaves and Shirley (2009) indicate the Change Agent responsibility is the act of sustaining change over time. In *The Fourth Way,* Hargreaves and Shirley (2009) indicated, "the hardest part of educational change is not how to start it, but how to make it last and spread" (p. 94). To truly enact successful change, the change must be sustained over time (Hargreaves & Shirley, 2009; Reeves, 2009; Shirley & Noble, 2016; Weston, Ferris, & Finkelstein, 2017). In this study, utilization of Change Agent was found to increase with experience.

If job embedded experience increases leadership skills, additional time within a role would demonstrate an increase in the utilization of Leadership Responsibilities. Programs providing settings for leaders to apply concepts authentically, prepares leaders an opportunity for growth and development in their leadership (Devin, Augustine-Shaw, & Hachiya, 2016; Plamer, Almager, and Valle, 2019)). However, study was not able to support this hypothesis, but instrumentation with higher internal reliability and validity may produce different results. As a result, additional research in the development of the assistant principal must be conducted to provide evidence on what creates stronger leadership as schools continue to try to meet the demand for increased student achievement.

Appendix A



Re: Permission to Use Inbox ×

Kerry Schindler Mon, Nov 9, 9:06 PM (5 days ago)

to me

Anna,

Congratulations on nearing the end of your program. I'm sure it has been an incredible journey. You absolutely have my permission to use and adapt the survey. I would be thrilled to receive a copy of your dissertation and/or the results.

Please don't hesitate to reach out if I can help in the completion of your studies.

Kindest regards,

KAS

Kerry Schindler

On Nov 9, 2020, at 16:32, Anna Thurman <annathurman@ozarktigers.org> wrote:

Dr. Schindler,
Thank you for taking time to read this in these unprecedented times in education. I am a doctoral student at Southwest Baptist University in Missouri. My dissertation topic is the utilization of Marzano's 21 Leadership Responsibilities by Assistant Principals.

Your doctoral work on principal instructional leadership is really well written and has been a helpful resource for me. I am writing to ask your permission to utilize your survey with minor changes to the demographic section. It would be most appreciated and I would share my results with you.

Thank you for your consideration,

Anna Thurman, Principal
Ozark East Elementary

Appendix B

Dear Missouri Assistant Principal,

I am completing the doctoral program in Educational Leadership at Southwest Baptist University in Bolivar, Missouri. I am writing to request your help with my dissertation. Your participation will take approximately 10 minutes.

The focus of my paper is the utilization of Marzano's 21 Leadership Responsibilities by assistant principals. Research on the assistant principal position is slim and it is important to gather research on the roles and responsibilities of your position.

Please take a few minutes to answer this Likert scale survey on 62 statements tied to the Leadership Responsibilities. Your participation is voluntary, and you may withdraw at any time. Your personal information and survey results will be kept confidential. This research study survey has been approved by the SBU Research Review Board. Thank you, in advance, for your help in this study. Please feel free to contact me if you have further questions. I will be happy to provide you with the results of the survey if requested.

Here is the survey link:

Thank you for your participation,

Anna Thurman

Appendix C

Dear Missouri Assistant Principal,

I recently sent you an email requesting your participation in a survey I am conducting as a part of my dissertation on the roles of assistant principals. The survey is still open, and I would appreciate your participation. Your input can help the education community better understand an assistant principal's roles and responsibilities. Your participation will take approximately 10 minutes.

Your participation is voluntary, and you may withdraw at any time. Your personal information and survey results will be kept confidential. This research study survey has been approved by the SBU Research Review Board. Thank you, in advance, for your help in this study. Please feel free to contact me if you have further questions. I will be happy to provide you with the results of the survey if requested.

Here is the survey link:

Thank you for your participation,

Anna Thurman

Appendix D

On Sat, Dec 5, 2020 at 9:45 AM Kerry Schindler <kschindler@hillcollege.edu> wrote: Sounds like you are having fun. I hope you get the sample size to make your research worthwhile. You, of course, have my permission and I am excited to stay engaged with your studies as it has been almost a decade since my research.

My studies have served me well as I have been submerged in the practicing side of my initial literature review of theory. Your reaching out has encouraged me to once again renew interest in the topic.

Stay in touch. I hope all goes well.

KAS

Kerry Schindler

On Dec 5, 2020, at 08:09, Anna Thurman <annathurman@ozarktigers.org> wrote:

Dr. Schindler,

Thank you for your initial permission. In preparing to utilize your survey I determined I would need to group the statements according to my research questions. Therefore,

I wanted to ask your permission to use your survey to measure the Leadership Responsibilities identified as serving second-order change and the four responsibilities

Marzano et al., identified as being challenged during second order change. To do this, I would group the questions on your survey by responsibilities. I will run a pilot to determine construct validity.

I appreciate your time.

Anna Thurman, Principal
Ozark East Elementary

REFERENCES

Adams, C. M., Olsen, J. J., & Ware, J. K. (2017). The school principal and student learning capacity. *Educational Administration Quarterly*, *53*(4), 556–584. https://doi.org/10.1177/0013161X17696556

Allison, E., Clinton, J., Hattie, J., Kamm, C., Lassiter, C., McNulty, B., White, S. (2011). *Activate: A leader's guide to people, practices, and processes*. Englewood, CO: Lead + Learn Press.

Anast-May, L., Buckner, B., & Geer, G. (2011). Redesigning principal internships: Practicing principals' perspectives. *International Journal of Educational Leadership Preparation*, *6*(1). https://doi.org/10.32469/10355/59790

Bambrick-Santoyo, P., & Peiser, B. M. (2012). *Leverage leadership: a practical guide to building exceptional schools*. San Francisco: Jossey-Bass.

Barnett, B. G., Shoho, A., & Oleszewski, A. (2012). The job realities of beginning and experienced assistant principals. *Leadership & Policy in Schools* 11(1), 92–128. https://doi.org/10.1080/15700763.2011.611924.

Bhengu, T. T., & Myende, P. E. (2016). Leadership for coping with and adapting to policy change in deprived contexts: Lessons from school principals. *South African Journal of Education*, *36*(4), 1-10. https://doi.org/10.15700/saje.v36n4a1322

Björk, L. G., Browne-Ferrigno, T., & Kowalski, T. J. (2014). The superintendent and educational reform in the united states of america. *Leadership and Policy in Schools*, *13*(4), 444–465. doi: 10.1080/15700763.2014.945656

Blase, J. R., Blase, J., & Phillips, D. Y. (2010). *Handbook of school improvement: How high-performing principals create high-performing schools*. Retrieved from http://site.ebrary.com/id/10831381

Bolman, Lee G., and Terrence E. Deal. 2017. *Reframing Organizations: Artistry, Choice and Leadership*.

Boyland, Lehman, and Sriver. 2015. "How Effective Are Indiana's New Principals? Implication for Preparation and Practice." *Journal of Leadership Education* 13(3). doi: 10.12806/V14/I1/R5.

Brown, P., Finch, K., MacGregor, C., & Watson, R. (2012). Divergent Angry Voices. *International Journal of Educational Leadership Preparation*, *7*(3) 1-16.

Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2013). School leaders matter. *Education Next*, *13*(1), 62–69.

Browne-Ferrigno, T., & Björk, L. G. (2018). Reflections on education reform and team leadership. *Research in Educational Administration & Leadership*, *3*(2), 339–347. https://doi.org/10.30828/real/2018.2.9

Campbell, K. T., & Parker, R. (2016). A comparison of internships among Louisiana university principal preparation programs. *Research in the Schools*, *23*(2), 17–27.

Chang, D. F., Chen, S. N., & Chou, W. C. (2017). Investigating the major effect of principal's change leadership on school teachers' professional development. *IAFOR Journal of Education*, *5*(3), 139-154. https://doi.org/10.22492/ije.5.3.07

Combs, J. P., Harris, S., & Edmonson, S. (2015). Four essential practices for building trust. *Educational Leadership*, 72(7) 18–22.

Connors, Neila A. 2014. *If You Don't Feed the Teachers, They Eat the Students!: Guide to Success for Administrators and Teachers*.

Cotton, K. (2003). *Principals and student achievement: What the research says*. Association for Supervision and Curriculum Development.

Cox, S., Parmer, R., Strizek, G., and Thomas, T. (2016). *Documentation for the 2011–12 schools and staffing survey (NCES 2016-817).* National Center for Education Statistics. Retrieved 7/25/2020 from https://nces.ed.gov/surveys/sass/tables/sass_2004_29.asp

Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches*. SAGE Publications.

Culpepper, T. (2016). Teaching in the principal's office. *Principal*, *95*(5), 50–50.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr. M. T., & Cohen, C. (2007). Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.

Davis, S. H., & Leon, R. J. (2014). Developing a leadership brand: the heart of effective school leadership in turbulent times. *Planning & Changing*, *45*(1/2), 3–18.

Devin, M., Augustine-Shaw, D., & Hachiya, R. F. (2016). Changing from traditional practice to a new model for preparing future leaders. *Educational Considerations*, *43*(4). doi: 10.4148/0146-9282.1008

Dodson, R. L. (2015). What makes them the best? An analysis of the relationship between state education quality and principal preparation practices. *International Journal of Education Policy and Leadership*, *10*(7), 1-21. https://doi.org/10.22230/ijepl.2015v10n7a634

Dolph, D. (2017). Resistance to change: A speed bump on the road to school improvement? *Journal of Educational Leadership and Policy Studies*, *1*(1), 6–20.

DuFour, R. (2015). *In praise of American educators: And how they can become even better*. Bloomington, IN: Solution Tree Press.

DuFour, R., & Marzano, R. J. (2009). High-Leverage Strategies for Principal Leadership. *Educational Leadership*, 66(5), 62–68.

DuFour, Richard, Douglas Reeves, and Rebecca DuFour. 2017. *Responding to the every student succeeds act with the PLC at work process*. Bloomington, IN: Solution Tree Press.

Easton, L. B. (2015). *Powerful designs for professional learning*.

Elmore, R. F. (2004). *School reform from the inside out: Policy, practice, and performance*. Cambridge, MA: Harvard Education Press.

Elmore, R. (2003). Knowing the right thing to do: School environment and performance-based accountability. Washington, DC: NGA Center for Best Practices.

Erkens, C., & Twadell, E. (2012). *Leading by design: An action framework for PLC at Work leaders*. Retrieved from http://site.ebrary.com/id/10744002

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191

Friedman, T. L., & Mandelbaum, M. (2012). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York: Picador.

Fullan, Michael. 2001. *Leading in a Culture of Change*. 1st ed. San Francisco: Jossey-Bass.

Fullan, Michael. 2010. *Motion Leadership: The Skinny on Becoming Change Savvy*. Corwin.

Fullan, Michael. (2014). *Principal: three keys to maximizing impact.* JOSSEY-BASS.

Fuller, E. J., Hollingworth, L., & Pendola, A. (2017). The every student succeeds act, state efforts to improve access to effective educators, and the importance of school leadership. *Educational Administration Quarterly*, *53*(5), 727–756. doi:10.1177/0013161x17711481

Graham, K. (2018). Effective leadership in education: A brief analysis. *National Teacher Education Journal*, *11*(1), 23–26.

Gray, D, & Lewis, J. (2013) Preparing principals to become instructional leaders. *Review of Higher Education and Self-Learning,* 6(18) 141–49.

Grissom, J. A., & Bartanen, B. (2019). Principal Effectiveness and Principal Turnover. *Education Finance and Policy*, *14*(3), 355–382. https://doi.org/10.1162/edfp_a_00256

Grissom, J. A., Mitani, H., & Woo, D. S. (2019). Principal preparation programs and principal outcomes. Educational Administration Quarterly, *55*(1), 73–115. https://doi.org/10.1177/0013161X18785865

Guerra, F., Zamora, R., Hernandez, R., & Menchaca, V. (2017). University strategic planning: a process for change in a principal preparation program. *International Journal of Educational Leadership Preparation*, *12*(1), 1-14.

Hall, Pete, Deborah Childs-Bowen, Ann Cunningham-Morris, Phyllis Pajardo, and Alisa Simeral. *The Principal Influence: A Framework for Developing Leadership Capacity in Principals*. ASCD, 2016.

Hamilton, L. S., Grant, D., Kaufman, J. H., Diliberti, M., Schwartz, H. L., Hunter, G. P., … Young, C. J. (2020). COVID-19 and the state of k–12 schools: Results and technical documentation from the spring 2020 american educator panels covid-19 surveys [Product

Page]. Retrieved June 30, 2020, from https://www.rand.org/pubs/research_reports/RRA168-1.html

Hamilton, L. S., Kaufman, J. H., & Diliberti, M. (2020). Teaching and leading through a pandemic: Key findings from the american educator panels spring 2020 covid-19 surveys [Product Page]. Retrieved June 30, 2020, from https://www.rand.org/pubs/research_reports/RRA168-2.html

Hanushek, E. A., & Woessmann, L. (2017). School resources and student achievement: A review of cross-country economic research. In M. Rosén, K. Yang Hansen, & U. Wolff (Eds.), *Cognitive Abilities and Educational Outcomes* (pp. 149–171). https://doi.org/10.1007/978-3-319-43473-5_8

Hargreaves, Andy, and Dennis Shirley. 2009. *The Fourth Way: The Inspiring Future for Educational Change*. Thousand Oaks, Calif: Corwin Press.

Hattie, J. (2009). *Visible learning a synthesis of over 800 meta-analyses relating to achievement*. London Routledge / Taylor et Francis.

Heifetz, Ronald A., and Marty Linsky. 2004. "When Leadership Spells Danger." *Educational Leadership* 61(7):33.

Herman, R., Gates, S. M., Arifkhanova, A., Barrett, M., Bega, A., Chavez-Herrerias, E. R., Wrabel, S. L. (2017). School leadership interventions under every student succeeds act: evidence review: Updated and expanded [Product Page]. Retrieved from https://www.rand.org/pubs/research_reports/RR1550-3.html

Horner, M., & Jordan, D. D. (2020). The partnership imperative for preparing effective principals in north carolina schools. *Journal of Organizational & Educational Leadership* 5(2), 19.

James-Ward, C., & Abuyen, J. (2015). McREL Leadership Responsibilities through the lens of data: The critical nine. *Global Education Review*, *2*(3), 82–93.

Jenkins, J., Lock, L., & Lock, M. (2018). Leadership--A critical bridge to accountability. *Delta Kappa Gamma Bulletin*, *84*(3), 10–15.

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). Beyond pd: Teacher professional learning in high-performing systems. *Center on International Education Benchmarking*. Retrieved from http://ncee.org/beyondpd/.

Kempa, R., Ulorio, M., Hendrik Wenno, I. (2017). Effectiveness leadership of principal. *International Journal of Evaluation and Research in Education*, *6*(4), 306–311. https://doi.org/10.11591/ijere.v6i4.10774

Kirtman, L. (2014). *Leadership and teams:The missing piece of the educational reform puzzle* (1st ed). Boston: Pearson.

Knight, J. (2019). Instructional Coaching for implementing visible learning: A model for translating research into practice. *Education Sciences*, *9*(2), 101. https://doi.org/10.3390/educsci9020101

Kotter, J. P. (2014). *Accelerate*. Harvard: Harvard Business School Press

Kotter, J. P. (2012). *Leading Change: With a New Preface by the Author* (1st ed). Harvard Business Review Press.

Krasnoff, B. (2015). Leadership qualities of effective principals. *Education Northwest*, 1–10.

Leithwood, K., & Azah, V. N. (2017). Characteristics of High-Performing School Districts. *Leadership & Policy in Schools*, *16*(1), 27–53. https://doi.org/10.1080/15700763.2016.1197282

Leithwood, K., Seashore, K., Anderson, S., & Walstrom, K. (2004). *How leadership influences student learning.* New York, NY: The Wallace Foundation

Lencioni, P. (2016). *The ideal team player: How to recognize and cultivate the three essential virtues: a leadership fable*. Hoboken, New Jersey: John Wiley and Sons, Inc.

Levine, A. (2005). Educating school leaders. New York: Washington, DC: The Education School Project.

Marzano, R. J., Frontier, T., & Livingston, D. (2011). *Effective supervision: Supporting the art and science of teaching*. Alexandria, Va.: ASCD.

Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*. Alexandria, VA: Mid-continent Research for Education and Learning: Association for Supervision and Curriculum Development.

Marzano, R. J., Warrick, P. B., Rains, C. L., Dufour, R., & Jones, J. C. (2018). *Leading a high reliability school*. Retrieved from http://public.eblib.com/choice/publicfullrecord.aspx?p=5395032.

May, Abigail M., (2016) The assistant principal position as preparation for the principalship (2016). *Doctor of Education in Educational Leadership for Learning Dissertations*, 4. https://digitalcommons.kennesaw.edu/educleaddoc_etd/4

McBrayer, J., Jackson, T., Pannell, S., Sorgen, C., De Blume, A., & Melton, T. (2018). Balance of instructional and managerial tasks as it relates to school leaders' self-efficacy. *Journal of School Leadership*, *28*(5), 596–617. https://doi.org/10.1177/105268461802800502

Marzano, R. J., & Waters, T. (2005). *School Leadership That Works: From Research to Results* (1st US-1st Printing edition). ASCD.

McDaniel, L. (2017). *Andragogical Practices of School Principals in Developing the Leadership Capacities of Assistant Principals.* Retrieved from https://www.proquest.com/docview/1943303089.

Mertens, D. M. (2019). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. SAGE Publications.

Mills, G., & Gay, L. (2018). *Educational research: Competencies for analysis and applications* (12th edition). Pearson.

Militello, M., Fusarelli, B., Mattingly, A., & Warren, T. (2015). "We do what we're told:" How current assistant principals practice leadership and how they wish they could. *Journal of School Leadership*, *25*(2), 194–222. https://doi.org/10.1177/105268461502500201

Miller, Ashley. 2013. "Principal Turnover and Student Achievement." *Economics of Education Review* 36:60–72. doi: 10.1016/j.econedurev.2013.05.004.

Mitchell, C., Armstrong, D., & Hands, C. (2017). "Oh, is that my job?" Role vulnerability in the vice-principalship: *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, *45*(1), 3–18.

Mombourquette, C. (2017). The role of vision in effective school leadership. *International Studies in Educational Administration*, *45*(1), 19–36.

Mongillo, M.B. (2017). Preparing school leaders for young learners in the united states. *Global Education Review*, *4*(3), 37–55.

Morgan, T. L. (2018). Assistant principals' perceptions of the principalship. *International Journal of Education Policy and Leadership*, *13*(10)1-20. https://doi.org/10.22230/ijepl.2018v13n10a743

Muhammad, A. (2018). *Transforming school culture how to overcome staff division*. Bloomington: Solution Tree Press.

Nappi, J. S. (2019). Leaders building effective teams: Three corners of engagement. *Delta Kappa Gamma Bulletin*, *85*(3), 58–70.1

National Center for Educational Statistics. (1993) Retrieved January 10, 2021 from https://nces.ed.gov/pubs93/web/93452.asp.NCES 93-452

Nelson, Sarah W., de la Colina, Maria G., and Boone, Michael D. 2008. "Lifeworld or Systemsworld: What Guides Novice Principals?" edited by Charles F. Webber. *Journal of Educational Administration* 46(6):690–701. doi: 10.1108/09578230810908280.

Neumerski, Christine M., Jason A. Grissom, Ellen Goldring, Timothy A. Drake, Mollie Rubin, Marisa Cannata, and Patrick Schuermann. 2018. "Restructuring Instructional Leadership: How Multiple-Measure Teacher Evaluation Systems Are Redefining the Role of the School Principal." *The Elementary School Journal* 119(2):270–97. doi: 10.1086/700597.

Niewenhuizen, L., & Brooks, J. S. (Ed.). (2013). *Antiracist school leadership:Toward equity in education for America's students introduction*. Charlotte, NC: Information Age Publishing.

Oleszewski, A., Shoho, A., & Barnett, B. (2012). The development of assistant principals: A literature review. *Journal of Educational Administration*, *50*(3), 264–286. https://doi.org/10.1108/09578231211223301

Oliver, J., Gordon, S. P., & Oliver, M. L. (2018). Examining the value aspiring principals place on various instructional strategies in principal preparation. *International Journal of Education Policy and Leadership*, *13*(3), 1-18. https://doi.org/10.22230/ijepl.2018v13n3a735

Olsen, A., & Huang, F. (2019). Teacher job satisfaction by principal support and teacher cooperation: Results from the schools and staffing survey. *Education Policy Analysis Archives*, *27*, 11. https://doi.org/10.14507/epaa.27.4174

Palmer, D. L., Almager, I. L., & Valle, F. (2019). Designing our principal pipeline from a job-embedded residency. *School Leadership Review, 14,* 19.

Pannell, S., & Sergi-McBrayer, J. (2020). An examination of the impact of educational leadership field experience structure on instructional leadership preparedness. *International Journal of Educational Leadership Preparation*, *15*(1), 92–106.

Pautz, S., & Sadera, W. A. (2017). Leadership practice in a one-to-one computing initiative: Principals' experiences in a technology driven, second-order change. *Computers in the Schools*, *34*(1/2), 45–59. https://doi.org/10.1080/07380569.2017.1296314

Pelham, B. W. (2012). *Intermediate Statistics: A Conceptual Course* (1st edition). SAGE Publications, Inc.

Peters, G. B., Gurley, D. K., Fifolt, M., Collins, L., & McNeese, R. (2016). Assistant Principals' perceptions regarding the role and the effectiveness of an educational leadership program. *International Journal of Higher Education*, *5*(1), 183–199. https://doi.org/10.5430/ijhe.v5n1p183

Reeves, D. B. (2009). *Leading change in your school: How to conquer myths, build commitment, and get results*. Alexandria, VA: Association for Supervision and Curriculum Development.

Reeves, D. B. (2016). *From leading to succeeding: The seven elements of effective leadership in education*. Bloomington, IN: Solution Tree Press.

Reich, Carrie Lynne. 2012. "An Examination of the Preparedness of Principals through the Portal of the High School Assistant Principalship." Ed.D., University of Missouri - Columbia, United States -- Missouri.

Rinehart, E. K., & Alcorn, N. (2019). Keeping things on track: School principals as managers. *New Zealand Journal of Educational Studies*, *54*(2), 297–313. https://doi.org/10.1007/s40841-019-00140-5

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.

Ross, D. J., & Cozzens, J. A. (2016). The Principalship: Essential core competencies for instructional leadership and its impact on school climate. *Journal of Education and Training Studies*, *4*(9).

Roza, M., Celio, M. B., Harvey, J., & Wishon, S. (2003). A matter of definition: Is there truly a shortage of school principals? Seattle: University of Washington, Center on Reinventing Public Education.

Salkind, N.J. (2014). *Statistics for people who (think they) hate statistics.* 5th edition. Los Angeles: SAGE

Sanfelippo, J., & Sinanis, T. (2016). *Hacking Leadership: 10 Ways Great Leaders Inspire Learning That Teachers, Students, and Parents Love*. Cleveland, OH: Times 10 Publications.

Schein, E. H. (1996). Culture: The missing concept in organization studies. *Administrative Science Quarterly*, *41*, 229–240. https://doi.org/10.2307/2393715

Schindler, K. A. (2012). *An analysis of the relationship of perceived principal instructional leadership behaviors and student academic achievement* (Publication No. 3093935). Doctoral Dissertation

Schulz, J., Mundy, M.A., Kupczynski, L., & Jones, D. (2016). A comparison of practical leadership skills of principals and assistant principals. *National Forum of Educational Administration and Supervision Journal, 34*(4), 1-10.

Sebastian, J., Allensworth, E., & Huang, H. (2016). The role of teacher leadership in how principals influence classroom instruction and student learning. *American Journal of Education*, *123*(1), 69–108. doi: 10.1086/688169

Searby, L., Browne-Ferrigno, T., & Wang, C. (2017). Assistant principals: Their readiness as instructional leaders. *Leadership & Policy in Schools*, *16*(3), 397–430. https://doi.org/10.1080/15700763.2016.1197281

Senge, Peter M. (1990). *The fifth discipline : the art and practice of the learning organization.* New York: Doubleday

Sheninger, E. C., & Murray, T. C. (2017). *Learning transformed: 8 keys to designing tomorrow's schools, today*. ASCD.

Shirley, D. (2016). How to lead educational change. Journal of Educational Change. 17. 10.1007/s10833-016-9281-9.

Shirley, D. & Noble, A. (2016). The marathon of educational change. *Journal of Educational Change. 17* (2), 141-144

Simon, Nicole S., and Susan Moore Johnson. 2015. “Teacher Turnover in High-Poverty Schools: What We Know and Can Do.” *Teachers College Record* 117(3).

Smith, S. C., & Piele, P. K. (2006). *School leadership: Handbook for excellence in student learning*. Thousand Oaks, CA: Corwin Press.

Stein, L. (2016). Schools need leaders - not managers: It's time for a paradigm shift. *Journal of School Leadership*, *15*(2), 21–29. https://doi.org/10.12806/v15/i2/i3

Sterrett, W. L., Parker, M. A., & Mitzner, K. (2018). Maximizing teacher time: The collaborative leadership role of the principal. *Journal of Organizational and Educational Leadership*, *3*(2), 1.

Sturgis, K., Shiflett, B., & Tanner, T. (2017). Do leaders’ experience and concentration area influence school performance? *Administrative Issues Journal: Connecting Education, Practice, and Research*, *7*(1), 107–121. https://doi.org/10.5929/2017.7.1.8

Sun, A., & Shoho, A. R. (2017). Assistant principals’ perceptions of value added to school success. *Journal of School Leadership*, *27*(4), 456–490. https://doi.org/10.1177/105268461702700401

Sussman, M. (2018). Even superheroes need help: Principals who share leadership have greater impact on student achievement. *Learning Professional*, *39*(1), 32–36.

Thornton, B., Usinger, J., & Sanchez, J. (2019). Leading effective building level change. *Education*, *139*(3), 131.

Tucker, M. S. (2011). Standing on the shoulders of giants: An American agenda for education reform. In *National Center on Education and the Economy (NJ3)*. National Center on Education and the Economy.

Tucker, M. S. (2014). Fixing Our National Accountability System. In *National Center on Education and the Economy*. Retrieved from https://eric.ed.gov/?id=ED556313

Ubben, G. C., Hughes, L. W., & Norris, C. J. (2017). *The principal: Creative leadership for excellence in schools* (8th ed.). Boston: Pearson College Division. https://doi.org/10.1177/019263658707150024

U.S. Department of Labor, Bureau of Labor Statistics. (2020).

Uysal, S., & Sarıer, Y. (2018). Meta-analysis of school leadership effects on student achievement in USA and Turkey. *Cypriot Journal of Educational Sciences*, *13*(4), 590–603. https://doi.org/10.18844/cjes.v13i4.3539

VanTuyle, V. L. (2018). Illinois assistant principals: Instructional leaders or disciplinarians. *Education Leadership Review*, *19*(1), 1–20.

Vidal-Butler, S. L. (2017). Knowledge and Professional Development for Principals Leading Linguistic Communities in Schools. In *ProQuest LLC*. ProQuest LLC.

Wead, J. K. (2016). *A study of educational leadership preparation concerning the assistant principal: Perspectives of Missouri principals and assistant principals* (Publication No. 11012996) [Doctoral dissertation, University of Missouri]. ProQuest Dissertations & Theses Global.

Weigel, Kathleen, and Jones, Richard. 2015. Learning Leaders. *Journal for Leadership and Instruction*, Spring, 2015, 44-48

Weller, L. David, and Sylvia J. Weller. *The Assistant Principal: Essentials for Effective School Leadership*. Corwin Press, 2002.

Weston, C., Ferris, J., & Finkelstein, A. (2017). Leading change: an organizational development role for educational developers. *International Journal of Teaching and Learning in Higher Education*, *29*(2), 270–280.

Whitaker, Todd. 2020. *What Great Principals Do Differently: Twenty Things That Matter Most*. Third edition. New York: Routledge.

Wong, T. Y., & Liu, P. (2018). Hong Kong Principal Professional Development: Context, Challenges, and Opportunities. *Chinese Education & Society*, *51*(5), 359–371. https://doi.org/10.1080/10611932.2018.1510689

Yavuz, O., & Robinson, Q. L. (2018). Exploring aspiring school leaders' perception of preparedness on four leadership domains. *Education Reform Journal*, *3*(2), 59–77.

Young, M. D., Winn, K. M., & Reedy, M. A. (2017). The every student succeeds act: strengthening the focus on educational leadership. *Educational Administration Quarterly*, *53*(5), 705–726. https://doi.org/10.1177/0013161X17735871

Zaber, M. A., Karoly, L. A., & Whipkey, K. (2019). Reimagining the workforce development and employment system for the 21st century and beyond: [Product Page]. Retrieved, https://www.rand.org/pubs/research_reports/RR2768.html