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HARNESSING THE POWER OF PRINCIPAL LEADERSHIP TO BUILD HIGH LEVELS OF COLLECTIVE EFFICACY TO SIGNIFICANTLY INCREASE STUDENT ACHIEVEMENT

by

Adonna Michelle Echiverri

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ABSTRACT

The purpose of this phenomenological study was to identify and describe the leadership characteristics, practices, and styles that lead to the development of high collective efficacy in a school to increase student achievement. Teachers and principals participated in this mixed-methods research, with principals as the primary unit of analysis—only principals with at least 3 years of experience in their current role and at their current site in order to ensure the collective efficacy being reported was in fact a product of or related to their leadership. The focus of the research was four districts spread across two southern California counties, Riverside and San Diego. Participants were from public K–12 schools in these districts. Data from 136 participants—126 teachers and 10 principals—are included in this study

I conducted the Collective Efficacy Scale with teaching staff and the Principal Self-Efficacy Survey with principals, and five individual interviews with principals from high collective efficacy schools. The primary research questions of the study asked: What leadership characteristics, practices, and styles lead to high collective efficacy in schools? How do principals believe they have built high levels of collective efficacy among their staff? Information obtained from this research study provides a deeper understanding of the leadership characteristics, practices, and styles that most contribute to building high levels of collective efficacy in schools. The results of this study could be used to inform current and prospective site administrators on how to build high levels of collective efficacy in their organization to increase student achievement.

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF TABLES	v
LIST OF FIGURES	vi
ACKNOWLEDGEMENTS	vii
CHAPTER 1	1
Statement of the Problem	1
Purpose of the Study	3
Research Questions	3
Research Subquestions	3
Theoretical Framework	4
Social Cognitive Theory	6
Social Cognitive Theory of Organizational Management	8
Significance of the Study	11
Definition of Terms	12
Limitations	14
Delimitations	14
Summary	14
CHAPTER 2: REVIEW OF LITERATURE	15
Self-Efficacy	15
Self-Efficacy and Motivation	18

Self-Efficacy and Mastery Modeling	19
Self-Efficacy and Goal Setting	20
Self-Efficacy and Feedback	21
Collective Efficacy	22
Collective Teacher Efficacy	23
Principal Self-Efficacy and Collective Efficacy	27
Principal Leadership and Collective Efficacy	30
The Impact of Collective Efficacy on Student Achievement	31
Leadership Styles	32
Instructional Leadership	33
Transformational Leadership	35
Educational Equity Mindset and Beliefs	39
Collaboration	40
Teacher Leadership and Collective Efficacy	43
Trust	43
Summary	45
CHAPTER 3: METHODOLOGY	46
Introduction	46
Setting and Participants	47
Sampling Procedures	47
Sample—District Demographics	48
Instrumentation and Measures	49

Reliability	53
Validity	55
Plan for Data Collection	56
Data Analysis	57
Ethical Issues	57
Summary	58
CHAPTER 4: RESULTS	59
Introduction	59
Participant Demographics	61
Quantitative Results	66
Moderate to Significant Quantitative Findings	68
Qualitative Results	70
Principal Interview Data	75
Leadership Characteristics/Practices Findings	76
Collaboration	77
Equity Mindset and Beliefs	80
Self-Efficacy	84
Trust	89
Goal Driven/Results Oriented	93
Leadership Styles Findings	94
Transformational Leadership	94
Instructional Leadership	99

Teacher Leadership	100
Summary	101
CHAPTER 5: DISCUSSION	105
Summary of the Study	105
Discussion of the Findings	109
Implications for Practice	110
Limitations	111
Delimitations	112
Recommendations for Further Research	112
Conclusions	113
REFERENCES	116

LIST OF TABLES

Table 1. Results of Four Leadership Efficacy Practices	30
Table 2. Proposed Data Collection Sites	48
Table 3. Teacher Collective Efficacy Survey Participation	59
Table 4. School Demographic Data	62
Table 5. School Demographic Data	64
Table 6. Principal's Demographic Data	65
Table 7. R-Values for Principal Self-Efficacy	69
Table 8. Teacher's Code and Category Data from Teacher Survey Open Ended Question	71
Table 9. Principal's Code and Category Data from Principal Survey Open Ended Question	72

LIST OF FIGURES

Figure 1 Model of Triadic Reciprocal Determinism	7
Figure 2 Proposed Model of the Formation, Influence, and Change of PCE	26
Figure 3 Instructional Management Framework	34
Figure 4 Creswell's Six Steps for Analysis and Representation of Phenomena	47
Figure 5. Procedures for Preparing and Conducting Interviews	54
Figure 6 Teacher Collective Efficacy and Principal Self-Efficacy Means by District and School	67
Figure 7 Teacher Collective Efficacy Mean Scores by Age.	69
Figure 8. Leadership Characteristics/Practices of Teachers and Principals Means Comparison	73
Figure 9 Mean's Comparison of the Leadership Styles of Teachers and Principals	74
Figure 10 Mean Scores of Leadership Characteristics/ Practices from Principal Interview Data	77
Figure 11 Mean Scores of Leadership Styles from Principal Interview Data	94
Figure 12 Mean Scores of Leadership Characteristics/Practices from Surveys and Interviews	102
Figure 13 Mean Scores of Leadership Characteristics/Practices from Surveys and Interviews	103
Figure 14 Leadership That Most Develops Collective Efficacy in a School	104

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CHAPTER 1

Statement of the Problem

A linchpin is a vital component of the complicated assembly and operation of a wheel train. Webster's Dictionary ("Linchpin," 2020) defined it as, "a locking pin inserted crosswise (as through the end of an axle or shaft)" Without the linchpin, the wheel would not stay in its place, on the axel, to allow the wheel to perform its very important task of allowing movement, forwards or backwards. In fact, without the linchpin, it is certain that the wheels will come off with movement, most likely creating devastating consequences. In education, principals are the linchpin of student achievement at their respective sites. As the linchpin, they hold all the important and essential components of the organization together (all stakeholders, relationships, pedagogy, instruction, assessment, etc.) and create the safe and assuring conditions that allow for movement of this complex machine.

Principals who cultivate high levels of collective efficacy to increase student achievement do so through very specific actions. These principals possess high self-efficacy and have high levels of confidence in the collective capabilities and possibilities in their school. They also develop and demand an equity mindset of all their employees, the belief that all students can learn and achieve at high levels regardless of any other factors. They are strong transformational and instructional leaders. They know the individual and collective strengths and weakness in their schools and understand pedagogically how to close the gaps in ways that teach, inspire, and support their staff. They are focused on results and consistently and clearly communicate goals and progress to all stakeholders. They reflect and adjust their course often in order to meet their goals. They intentionally build collaborative teams, whose members value learning from one another and are willing to take risks in order to improve their knowledge and application of

pedagogy. They value teacher—leaders and build capacity of all their staff and students. They foster high-levels of trust and understand that this is the glue that binds them together and allows them to engage fully in the work of collective efficacy. They do this by purposefully and sincerely building relationships with all stakeholders. They seek to understand before being understood. They lead with empathy and a resolve to facilitate a culture of trust. "Leadership is rooted in the ability to build trusting relationships that influence members of the learning community to come together in the best interest of the students entrusted into the care of the school team" (Wendland, 2018, p. 1). A culture of high trust allows individuals to take risks, be vulnerable, and ultimately change.

Like the gears and components of a complex machine, all of these things work together to create high levels of collective efficacy, which in turn has a significantly positive impact on student achievement. According to Donohoo et al. (2018), leadership and collective efficacy are linked together as the second greatest influencers on learning and student achievement with an effect size of 1.57, which is equivalent to nearly 4 years growth in 1 year's time. It is essential to note that collective efficacy is not created on its own but rather developed under a leader.

Collective efficacy is second only to teacher beliefs and expectations of student achievement, which have an effect size of 1.62. Hattie (2015) asserted, "The greatest influence on student progression in learning is having highly expert, inspired and passionate teachers and school leaders working together to maximize the effect of their teaching on all students in their care" (p. 2).

The majority of research conducted on collective teacher efficacy so far has been predominantly quantitative. Therefore, this study allows for further investigation into the leadership practices that best develop collective efficacy via discussions and conversations with

leaders who, identified by the quantitative research, have cultivated collective teacher efficacy. In addition, most research on collective teacher efficacy has focused on teachers' knowledge and beliefs but failed to recognize the principal as the linchpin of developing high levels of collective efficacy and specifically the actions these principals engage in to cultivate high levels of collective teacher efficacy and thus increase student achievement (Hofman-Kingston, 2017). "Leadership is widely regarded as one of the key factors for organizational success" (Kovanjic et al., 2012, p. 1)

Purpose of the Study

The purpose of this phenomenological study was to describe the impact of principal leadership on developing high levels of collective teacher efficacy in order to achieve significant student achievement outcomes. Collective efficacy is defined as "a group's shared belief in its conjoint capabilities to organize and execute the course of action required to produce given levels of attainment" (Bandura, 1997, p. 477).

Research Questions

This study was designed to explore two primary research questions:

1. What leadership characteristics, practices, and styles lead to high collective efficacy in schools? How do principals believe they have built high levels of collective efficacy among their staff?

Research Subquestions

- 1. What role does a principal's own self-efficacy play in developing high levels of collective efficacy among their staff?
- 2. What role does an equity mindset play in developing high levels of collective efficacy?

- 3. Do leaders that possess multiple traits of transformational and instructional leadership cultivate higher levels of collective efficacy in their organizations?
- 4. What role does teacher leadership and high functioning collaborative teams have on collective efficacy? How do principals develop these teacher leaders and teams in their organization?
- 5. Does a clear focus on goals and results contribute to increasing collective teacher efficacy? If so, how does the principal establish and communicate these goals and results?
- 6. What role does trust play in developing high collective teacher efficacy?

These subquestions were developed as a result of a thorough review of the literature regarding collective efficacy. These themes emerged from the literature and provide additional lenses by which to better understand the power of collective efficacy and how to best develop it.

Theoretical Framework

This study uses the self-efficacy component of Bandura's (2000) social cognitive theory to examine a leader's role in developing high levels of collective efficacy in their organization; specifically for this study the unit of analysis was principals of K–12 schools. Social cognitive theory is summarized by Bandura (2000) as "an agentic perspective in which individuals are producers of experiences and shapers of events. Among mechanisms of human agency, none is more focal or pervading than the belief of self-efficacy" (p. 75). Therefore, this theory purports that humans have control over their own behaviors, which is also known as agency. Additionally, a large part of what determines a person's behaviors is their confidence or self-efficacy. Bandura (1997) defined self-efficacy as "an individual's belief in his or her innate ability to achieve goals" (p. 2).

According to Bandura (2006), four core features of human agency have an impact on self-efficacy or perceived self-efficacy. The first is intentionality. "People form intentions that include action plans and strategies for realizing them" (Bandura, 2006, p. 164). We all have ideas and thoughts of how we may obtain these desires. The second, is forethought. "People set themselves goals and anticipate likely outcomes of prospective actions to guide and motivate their efforts" (Bandura, 2006, p. 164). In order to realize our desires, we must determine a course of action. The third is self-reactiveness or the ability to be a self-regulator. "Agency thus involves not only the deliberative ability to make choices and action plans, but also the ability to construct appropriate courses of action and to motivate and regulate their execution" (Bandura, 2006, p. 165). While on our journey to reach our goals we must assess where we're at and make adjustments if needed in order to ensure we reach our goals. The fourth is self-reflectiveness. "People are not only agents of action. They are also self-examiners of their own functioning" (Bandura, 2006, p. 165). Upon completion of fulfilling our desires and reaching our goals we reflect on our experience, what worked and what did not, and apply this information while pursuing new desires and goals. This process is cyclical and repeated multiple times throughout our lives. People who are able to navigate through all four of these core properties of human agency have higher levels of self-efficacy, or confidence. Thus, we can see the power of selfefficacy in every aspect of our lives. The same is true for collective efficacy.

Collective efficacy is one of three modes of agency described in social cognitive theory, the other two being self-efficacy and proxy. Bandura (2006) argued that all three modes of agency are interdependent and are required for everyday functioning. Collective efficacy, as a mode of agency, is centered around the beliefs of a group in its capability to accomplish a given objective. The more the members of a team believe and use the four core properties of agency,

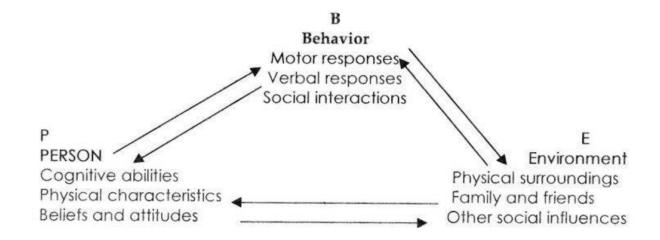
the more likely they are to accomplish their goal(s). Proxy agency is the idea that "people do not have direct control over conditions that affect their lives. They exercise socially mediated agency or proxy agency. They do so by influencing others who have the resources, knowledge, and means to act on their behalf to secure outcomes they desire" (Bandura, 2006, p. 165). Proxy agency applies to both individuals and groups. In self-efficacy, the individual determines their own functioning. Understanding the four core properties of agency, in relation to the three modes of agency, helps us to better understand the functions of agency and how this applies to our behaviors both individually and as a group.

Social Cognitive Theory

Over the centuries, human learning and behavior has been studied, analyzed, and explained in a variety of ways. However, for many years it was primarily described as one-sided determinism, that is that there are existing internal dispositions or environmental factors that cause a person to behave as they do. This theory was not challenged until relatively recently. Social cognitive theory posits that "people are both products and producers of their environment" (Wood & Bandura, 1989, p. 362). Bandura defined this new understanding of human behavior as triadic reciprocal determinism. "In this model of reciprocal determinism, behavior, cognitive, and other personal factors and environmental events operate as interacting determinants that influence each other bidirectionally" (Wood & Bandura, 1989, p. 362).

Model of Triadic Reciprocal Determinism

Figure 1



In contrast to the previously held view that people behave the way they do because they are born with inherent traits or because of influences in their environment, social cognitive theory recognizes that multiple interacting factors affect human behavior. It is important to note that the reciprocal nature of triadic determinism does not assume that the interacting influences are of equal strength nor that they must or do occur simultaneously. However, this new understanding—that multiple factors interact to produce behavior—was a breakthrough in our collective of understanding of human behavior.

The most fundamental assumption of social cognitive theory involves the choices that individuals and organizations make through the exercise of agency. According to social cognitive theory, the choices that individuals and organizations (through the actions of individuals) make are influenced by the strength of their efficacy beliefs. (Goddard et al., 2004, p. 4)

Social Cognitive Theory of Organizational Management

Bandura explained how social cognitive theory is applied to the management of organizations. With the knowledge that behaviors can be shaped by multiple interacting factors, he specifies three key aspects of social cognitive theory that pertain specifically to organizational management—"The development of people's cognitive, social, and behavioral competencies through mastery modeling, the cultivation of people's beliefs in their capabilities so that they will use their talents effectively, and the enhancement of people's motivation through goal systems" (Wood & Bandura, 1989, p. 362). Traditionally, psychological theories have maintained that people learn primarily through their direct actions, but social cognitive theory holds people also learn vicariously as a result of observing other peoples' behaviors, actions, and the consequences of those actions and choices. This is what Bandura (1988) referred to as mastery modeling.

Mastery modeling, the first key aspect of social cognitive theory for organizational management, has four specific components (Bandura, 1992)—attentional processes, representational processes, behavioral production processes, and motivational processes. First, attentional processes refers to what people choose to observe and remember. People are not greatly influenced nor learn from observation if they do not pay attention to and remember what they have observed. Second, in representational processes retention is key to learning via observation. "Retention involves an active process of transforming and restructuring information about events in the form of rules and conceptions. Retention is greatly aided when people symbolically transform the modeled information into memory codes and mentally rehearse the coded information" (Wood & Bandura, 1989, p. 362). This symbolic transformation refers to the way we process and store information for future use.

Third, in behavioral production processes, the observations people have made and remembered are translated into action. The human brain matches an observation and desired outcome to new behaviors in order to replicate it to achieve results similar to what was observed. When someone wants an outcome they have previously observed, their brain taps into the stored information that tells them how to achieve this desired outcome, which is what the behavioral production process is all about.

The final component in mastery modeling is motivational processes. People are most likely to adopt and replicate behaviors that produce the outcomes they desire and reject what they do not (Wood & Bandura, 1989, p. 363). It makes sense that people remember the things that motivate us. These four key aspects of mastery modeling (attentional processes, representational processes, behavioral production processes, and motivational processes) work together sequentially to allow us to learn vicariously and apply that learning in real life situations and contexts (Bandura, 1992).

Mastery modeling is not simply mimicry. All that is learned through observation is stored and becomes schema that one may draw upon, although the context and specific needs of each situation often vary from what was observed. This process of indirect learning allows one to develop many subskills and patterns for behavior, which may be applied in a variety of situations with varying contexts. "Much human learning is aimed at developing cognitive skills on how to acquire and use knowledge for different purposes" (Wood & Bandura, 1989, p. 363). The process of learning by observation is greatly aided when thought process is verbalized in conjunction with actions. Hence, when a learner is able to ask questions, describe, and discuss the observations they are making, they are much more likely to apply their observations and learn in action.

Mastery modeling is widely used to develop sustainable intellectual, social, and behavioral competencies in others, which is why it is an essential component of developing and affecting behaviors of people in organizations. Mastery modeling has three main elements. "First, the appropriate skills are modeled to convey the basic competencies. Effective modeling teaches people general rules and strategies for dealing with different situations, rather than specific responses" (Wood & Bandura, 1989, p. 363), such as job shadowing or following and observing an expert in their role. As a learner observes a variety of behaviors in various situations, they determine how the general rules apply and are adapted to meet specific needs. These modeling experiences have two purposes: (a) to provide an efficient model and (b) to build the learners self-assurance about their own capabilities.

The second element of mastery modeling is guided skill mastery. Once the new skills have been modeled, the learner needs guidance and practice with these skills. A great way to accomplish this guidance and practice is role-playing or simulations because there is no real risk involved, yet it allows for plenty of practice and opportunities to receive timely and instructive feedback in order to develop the skillset. After sufficient practice, it is imperative that the learner is provided with opportunities to practice in a real-life setting. "Modeling and guided performance under simulated conditions are well suited for creating competencies, but it is unlikely that the new skills will be used for long, unless they prove useful when they are put into practice in work situations" (Wood & Bandura, 1989, pp. 364–365). This practice should be coupled with feedback, which should be provided in two forms—via the supervisor/expert and via self-reflective feedback and evaluation. The learner should be deeply involved in reflecting on and reporting on their progress—Bandura "considered self-reflection the most uniquely

human capability, for through this form of self-referent thought people evaluate and alter their own thinking and behavior" (Pajares, 1996, p. 544).

The third element of mastery modeling is a transfer program. As its name implies, this element allows learners to use their newly acquired skills on the job in situations that are likely to produce desirable results and facilitate the learning developing both skills and confidence. "People must experience sufficient success when using what they have learned in order to believe in both themselves and the value of the new ways" (Wood & Bandura, 1989, p. 364). These three elements of mastery modeling are essential to the development and success of learners, especially those in influential leadership positions. Simply explaining rules and providing strategies without modeling and guided practice—including timely feedback, self-reflection, and on-the-job training—does not improve competencies. However, intentional implementation of mastery modeling in an organization has the potential to systematically build the capacity of employees by developing an employee's self-efficacy and thus, the organization's collective efficacy.

Significance of the Study

In the field of education there is an on-going vigorous debate about the reformation of schools to increase student achievement. More recently, a major theme regards leveraging the power of collective efficacy as the agent of change to do this work. This study aims to add to the body of research on collective efficacy and to better inform school leaders' actions in developing high levels of collective efficacy (Bieneman, 2012).

This study examines how principals can maximize their impact on student achievement by developing and fostering high levels of collective efficacy among their staff. Researchers have identified the factors with the greatest impact on student achievement. In a meta-analysis, Hattie (2009) identified that teachers have the single greatest impact on student achievement, both negatively and positively. Second, Hattie noted that great principals have the capacity to positively affect many teachers and thus students downstream. The results of this study will provide a framework that may be used by principals and other leaders to build collective efficacy in their organizations. Although this study looked specifically at the impact of K–12 principals' leadership on collective efficacy, the actions taken by these leaders may be generalizable to build high levels of collective efficacy.

Definition of Terms

Establishing a clear definition of these terms help ensures that this research is commonly understood and can be replicated reliably.

Agency: According to Bandura (2006), humans are unique in that they are able to transcend the conditions of their environment and have the power to shape their life and circumstances through their own choices, by proxy, or as a group (p. 164).

Collective efficacy: "A group's shared belief in its conjoint capabilities to organize and execute the course of action required to produce given levels of attainment" (Bandura, 1997, p. 477).

Equity mindset: An equity mindset is the belief that every single person can achieve at high levels. It is essential that in addition to understanding the basic tenets of growth mindset—abilities can be developed via hard work—it is understood that every human being is capable of developing in this way, regardless of race, ethnicity, socioeconomic status, environment, disabilities, or other circumstances.

Instructional leadership: Hooper and Bernhardt (2016) defined instructional leadership as "the intentional effort of leaders to guide, direct, and support teachers as they seek to improve their instructional practices" (p. 11).

Results orientation: "When leadership is focused on results, on urging a formal, frequent review of instruction, teaching improves" (Schmoker, 2006, p. 126). Hattie (2009) defined results orientation as "knowing thy impact" (p. 18-19). Principals and teachers must be able to account for a year's worth of growth for each student every year. Hattie developed a barometer of influence to help educators assess their effectiveness on student learning.

Self-efficacy: Bandura (1997) defined self-efficacy as "an individual's belief in his or her innate ability to achieve goals" (p. 2).

Social cognitive theory: Bandura (2000) summarized this theory as "an agentic perspective in which individuals are producers of experiences and shapers of events. Among mechanisms of human agency, none is more focal or pervading than the belief of self-efficacy" (p. 75).

Teacher–leaders: This term is "commonly applied to teachers who have taken on leadership roles and additional professional responsibilities" (Partnership, 2013).

Transformational leadership: Peter Northouse (2016) defined this style of leadership as a "process that changes and transforms people. It is concerned with emotions, values, ethics, standards, and long-term goals...It involves an exceptional form of influence...often incorporates charismatic and visionary leadership" (p. 161).

Trust: Tschannen-Moran and Hoy (2000) defined trust not as a "feeling of warmth or affection but the conscious regulation of one's dependence on another" (p. 549).

Limitations

The primary limitations of this study include both time and access limitations. The initial Teacher Collective Efficacy Survey was administered to four districts within 100 miles of each other, which was necessary as I used the results of this survey to identify principals of schools self-reporting high levels of collective efficacy and then interview them. I needed fairly easy access to four to six principals in order to conduct face-to-face interviews in a timely manner.

Delimitations

This study focused on principal leadership in K–12 settings in southern California where I had direct access to distribute surveys and conduct interviews. The goal was to obtain a large enough sample in order to make the results generalizable to development of collective efficacy in various organizations.

Summary

In conclusion, the purpose of this phenomenological study was to describe the impact of principal leadership on the development of high levels of collective teacher efficacy in order to achieve significant student achievement outcomes.

CHAPTER 2: REVIEW OF LITERATURE

Self-Efficacy

Wood and Bandura (1989) defined self-efficacy as "people's beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives" (p. 364). He further explained that the belief of personal efficacy is at the very core of human agency (Bandura, 2006). "Unless people believe they can produce desired effects by their actions, they have little incentive to act, or to persevere in the face of difficulties. Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to affect one's actions" (Bandura, 2006, p. 170). Efficacy beliefs affect all aspects of human behavior and shape people's goals and expectations for themselves or a group, which is evidenced by the fact that people tend to engage in tasks that they feel confident about and avoid the ones they do not.

Personal efficacy beliefs fall along a continuum of low to high. Additionally, one may possess high personal efficacy in one area and low efficacy in another. For example, one may perceive their athletic abilities as very high and their academic abilities as very low or vice versa. There is a difference in simply possessing high efficacy beliefs and actually using them well and consistently, especially in adverse circumstances. Those who are able to do the latter are most successful. It is important to note that people's perceptions of their self-efficacy can be developed, shaped, and strengthened. Wood and Bandura (1989) described the four principal ways to do this. He asserted that the most effective way to increase people's beliefs regarding their self-efficacy is through mastery experiences, which involves giving people access to a variety of successes and failures. It is essential that one learn to navigate through and manage both success and failure. "After people become assured of their capabilities through repeated

successes, they can manage setbacks and failures without being adversely affected by them" (Wood & Bandura, 1989, p. 364), which is the core of mastery experiences. Mastery experiences are the most effective way to develop and increase people's beliefs about their efficacy. They are directly related to mastery modeling.

The next best way to strengthen self-efficacy is via modeling. Having access to proficient models allows an observer to see how to successfully navigate and manage a variety of situations. As we observe others succeed via their sustained efforts we come to realize that we too are capable of similar feats. However, this also works in reverse—seeing others fail can prompt people to believe that they will likewise fail. Therefore, it is essential that proficient models are provided, which organizations can and should control for. That is part of the reason leadership by example matters so much, especially when the goal is building capacity and collective efficacy in an organization (Wood & Bandura, 1989, pp. 364–365). Increasing self-efficacy is directly correlated to the steps in mastery modeling.

The third way to increase self-belief is via social persuasion. Providing encouragement, praise, appropriate challenges, and meaningful tasks builds self-efficacy. As people set and accomplish short and long term goals, ranging in difficulty, they learn they can persevere and succeed. As they accomplish and overcome increasingly difficult tasks and situations, they take on more challenge, which builds resiliency, an essential feature of self-efficacy (Wood & Bandura, 1989, p. 365). Setting and accomplishing goals is another key aspect of building self-efficacy.

The fourth principle for developing self-efficacy is related to the management of overall well-being and health "to enhance physical status, to reduce...stress levels, or to alter...dysfunctional construals of somatic information" (Wood & Bandura, 1989, p. 365). How

people feel (physically, emotionally, mentally, and spiritually) and manage their lives matters and has an impact on what they believe they can do and accomplish and ultimately the environments and activities they choose to participate in. Research strongly supports this connection—"the stronger the people's self-beliefs of efficacy, the more career options they consider to be possible and the better they prepare themselves educationally for different occupational pursuits" (p. 365). The adage "what we believe, we can achieve" holds true, both positively and negatively. Unfortunately, self-limitation arises more from self-doubts rather than actual inability, which is especially true for women, who "are especially prone to limit their interests and range of career options through the self-beliefs that they lack the necessary capabilities for occupations that are traditionally dominated by men, even when they do not differ from men in actual ability" (Wood & Bandura, 1989, p. 365). Understanding this research is key in developing the perceived self-efficacy of all employees to the highest levels.

It is important to note that efficacy judgments about oneself or a group/organization are beliefs about capabilities and not necessarily true measures of those capabilities. Bandura (1997) noted, "A capability is only as good as its execution. The self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their capabilities" (p. 35). However, according to Pajares (1996) those possessing higher perceived self-efficacy also exert greater effort, persistence, and resilience.

It is essential to recognize that self-efficacy beliefs fall along a continuum from low to high and that one's efficacy beliefs change depending on the complexity, generality, and strength of a task. These three criteria are described by Albert Bandura (1977) as the as the three dimensions of self-efficacy. "Such beliefs determine how much effort people will expend and

how long they will persist in the face of failure or difficulty. The stronger the self-efficacy the longer the persistence" (Leithwood & Jantzi, 2008, p. 501).

According to Bandura (1977), two belief systems significantly impact oneself-efficacy—inherent capacity and acquired skill. People who believe in inherent capacity view their abilities as fixed, whereas those who believe in an acquired skill mindset also have a growth mindset and believe that skills can be acquired and developed over time and through experiences. Those who believe abilities are inherent tend to fail or have an eroding sense of self-efficacy when faced with challenges and opposition, while those who possess an acquired skill mindset persevere in the face of difficulty and opposition, setting new goals and figuring out ways to problem solve and ultimately overcome the obstacle and learn from it. It is possible to possess both mindsets depending on the task.

Self-Efficacy and Motivation

There is a direct and significant correlation between one's beliefs and their motivation. "The stronger the belief in their capabilities, the greater and more persistent are their efforts" (Wood & Bandura, 1989, p. 365). This correlation is especially important when it comes to challenges. Those with low self-efficacy slacken their efforts, abandon the task prematurely, or settle for mediocrity. Those with high self-efficacy exert greater effort in order to master the challenge. In order to develop greater self-efficacy, people need to experience many wins while increasing the complexity of the tasks. It is essential for leaders to create environments for employees to succeed early and often while increasing the complexity of the goals. In time, employees become more able to navigate a variety of tasks, ranging in complexity and the time required to complete them. Leaders seeking to develop and increase the efficacy of their

organization should start by increasing individual efficacy and be strategic in their modeling, goal setting, and feedback.

Self-Efficacy and Mastery Modeling

Wood and Bandura (1989) described mastery modeling as observers extracting "the rules governing the specific judgments or actions exhibited by others. Once they learn the rules, they can use them to judge events and to generate courses of action that go beyond what they have seen or heard" (p. 363). Wood and Bandura further explained that guided mastery modeling, which is the method of modeling that produces the best results, includes three major elements. First, effective modeling "teaches people general rules and strategies for dealing with different situations, rather than specific responses" (Wood & Bandura, 1989, p. 363). It is essential that people understand the basics of the rules and then how those rules can and should be adjusted to fit a variety of scenarios. The main purpose of the guided mastery modeling experience is to build confidence in the observer and in their abilities to handle similar situations.

The second major element of guided mastery modeling is guided skills mastery. "After individuals understand the new skills, they need guidance and opportunities to perfect them" (Wood & Bandura, 1989, p. 363), which is best achieved when an apprentice is able to practice these skills in simulated situations, ideally through role playing, and receive immediate instructive feedback. Finally, after this controlled practice, the third major element of mastery modeling can be employed, which is a transfer program aimed at providing self-directed success. "People must experience sufficient success when using what they have learned in order to believe both in themselves and the value of the new ways" (Wood & Bandura, 1989. p. 364), which happens best through a transfer program where individuals are able to use their new skills in situations that are likely to produce positive results. Transfer programs are key to building

confidence in an observer or apprentice. Over time, situations may and should increase in complexity, and an apprentice will have developed both the knowledge and confidence to tackle the increasingly difficult tasks and persevere in spite of challenges.

Mastery modeling has been proven to help supervisors develop lasting competences in their employees and apprentices. "To enhance competencies, people need instructive modeling, guided practice with corrective feedback, and help in transferring new skills to everyday situations" (Wood & Bandura, 1989, p. 364). These three major elements of guided mastery modeling lead to substantial and lasting results of individual and collective efficacy.

Self-Efficacy and Goal Setting

Goal setting is an essential element of developing self-efficacy. "People seek self-satisfactions from fulfilling valued goals, and they are motivated by discontent with substandard performances" (Wood & Bandura, 1989, p. 366). Those with higher perceived self-efficacy set more rigorous goals and persevere in accomplishing these goals, whereas those with lower perceived self-efficacy often fail to set rigorous goals, or any goals at all, and are often unmotivated to accomplish the goals they do set. Because most human behavior is aimed at obtaining a future result, goal setting is a necessary and essential component of developing efficacy. Goals work to provide a clear intended result. They guide and motivate people in their progress towards completion. People must experience success obtaining small goals and building their ability to accomplish increasingly difficult goals. "Motivation is best regulated by long-range goals that set the course for one's endeavors combined with a series of attainable subgoals that guides and sustains the efforts along the way" (Wood & Bandura, 1989, p. 367).

Regulating goals is another key factor in meeting them and is primarily done via selfregulation. When human beings exercise agency, they must monitor their motivation. "Thus, discrepancies between behavior and personal standards generate self-reactive influences, which serve as motivators and guides for action designed to achieve desired results. Through self-evaluative reactions, people keep their conduct in line with their personal standards" (Wood & Bandura, 1989, p. 366).

The power of goal setting is not unique to developing self-efficacy but also significantly contributes to the development of collective efficacy as well. "Groups with specific and challenging goals consistently have shown higher levels of performance than groups with no goals, easy goals, or do your best goals" (Gist, 1987, p. 475). Interestingly, the strength of efficacy beliefs, individual and collective, affects the goal levels chosen and the execution of those goals.

Self-Efficacy and Feedback

Another key way to build or weaken efficacy is via feedback. Feedback should be directly given and attained via self-reflection. A reciprocal relationship appears to exist between feedback and motivation. Bandura and Cervone (1986) found that unfavorable feedback tended to yield lower efficacy beliefs. Therefore, it is essential to be intentional and specific with feedback.

Heaphy and Losada demonstrated just how essential feedback is and the ratio that produces the best performing teams, concluding, "Top performing teams give each other more than five positive comments for every criticism" (as cited in Folkman & Zenger, 2013). To be exact, they reported 5.6 forms of positive feedback to one piece of negative or constructive feedback as the ratio linked to the highest performing teams. "The average ratio for the highest-performing teams was 5.6 (that is, nearly six positive comments for every negative one). The medium-performance teams averaged 1.9 (almost twice as many positive comments than

negative ones.) But the average for the low-performing teams, at 0.36 to 1, was almost three negative comments for every positive one" (Heaphy & Losada, as cited in Folkman & Zenger, 2013). Constructive feedback is necessary and essential and must be combined with praise and positive feedback in order to sustain and increase motivation and efficacy.

There is power in an informed leader modeling exceptional behaviors coupled with their ability to set short- and long-term individual and collective goals while providing targeted feedback to develop the perceived and actual efficacy of individuals and organizations. "The stronger perceived self-efficacy, the higher the goals people set for themselves and the firmer are their commitments to these goals" (Wood & Bandura, 1989, p. 366). Higher levels of perceived self-efficacy in an organization result in greater perceived collective efficacy (PCE).

Collective Efficacy

Bandura (1997) defined collective efficacy as "a group's shared belief in its conjoint capability to organize and execute the courses of action required to produce given levels of attainment" (p. 477). This construct of beliefs is identical to self-efficacy but pertains to a group or organization's beliefs in their joint abilities to accomplish a given task. Bandura also observed that greater efficacy beliefs, individual or collective, are linked to greater success and outcomes. "In other words, the assurance a person places in his or her team affects the team's overall performance. Researchers have since found this to be true across many domains. When a team of individuals share the belief that through their unified efforts they can overcome challenges and produce intended results, groups are more effective" (Donohoo et al., 2018, p. 41). Efficacy beliefs shape the way individuals and groups/organizations think, feel, behave, motivate themselves, and persist to accomplish intended results.

There is a strong link between collective efficacy beliefs and goal attainment. Interestingly, the research supports that this link exists among a wide variety of organizations, from organized neighborhood watches to businesses to educational organizations. "The conceptualization of PCE is robust; across settings, perceptions of group capability tend to be strongly and positively related to group processes and outcomes" (Goddard et al., 2004, p. 8). The greater sense of collective efficacy in an organization, the greater the resolve, effort, and persistence to accomplish the collective goals.

Collective Teacher Efficacy

In a school setting, collective teacher efficacy refers to the beliefs of the teachers as a whole to organize and execute the courses of action required to produce a given level of attainment, typically a positive effect on student learning and student achievement, which is different from individual teachers having high self-efficacy. It is possible to have an organization of highly efficacious people who work in isolation and have few meaningful collaborative experiences. Hoy and Miskel (2008) defined collective teacher efficacy as "the shared perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students" (p. 189).

Collective teacher efficacy is at the forefront of education and matters so much because both Bandura (1977) and Goddard et al. (2000) verified that the effects of perceived collective teacher efficacy on student achievement is greater than the effects of socioeconomic status, prior achievement, race/ethnicity, and gender. Strong efficacy beliefs have the power to overcome all of these perceived and real barriers to student achievement and learning, which occurs "because a robust sense of group capability establishes expectations (cultural norms) for success that

encourages organizational members to work resiliently toward desired ends" (Goddard et al., 2004, p. 8).

Multiple aspects of the organization of the school play a key role in fostering collective teacher efficacy. Some of these key aspects are principal leadership, positive school culture and climate, teacher empowerment, and lack of impediments to effective instruction. A culture of strong collective efficacy has the power to exert a strong influence on teachers' sense of efficacy for instruction (Goddard et al., 2004). Bandura (1986) noted that it is reasonable to expect a positive reciprocal relationship between teachers' self-efficacy and the perceived collective teacher efficacy in an organization, which is called *reciprocal causality*.

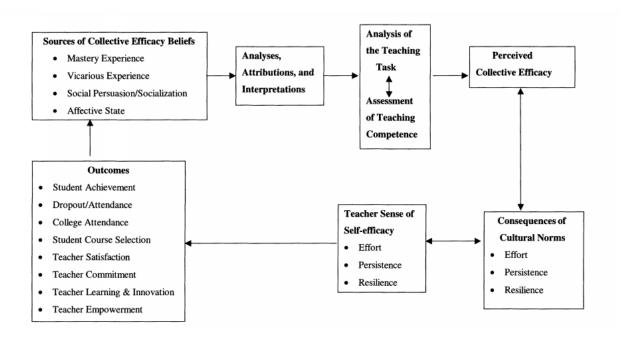
Coleman's (1990) social theory of normative influence helps to explain how reciprocal causality is possible. Social norms are developed by a group or organization in order to provide members with some influence over the actions of others, even allowing for consequences when the norms are not followed. "Such language suggests that collective expectations for action are indeed a powerful aspect of a school's operative culture and its influence on individual teachers" (Goddard et al., 2004, p. 9). The power here lies in the social persuasion exerted on teachers by teachers.

Collective efficacy beliefs encourage certain teacher actions and deter others. This social influence is powerful. In schools where PCE is strong, individual teachers know the expectations for student learning and achievement and are likely to put forth the effort to meet these expectations or leave. Conversely, in schools where the PCE is low, it is less likely that teachers know the expectations, will experience the social pressure from their peers to persist in challenging situations, or change their teaching to ensure students are learning and achieving at high levels (Goddard et al., 2004).

Goddard et al. (2004) reported that when teachers are provided opportunities to exercise collective agency, collective efficacy is strengthened, which includes involving teachers in relevant decision-making around topics such as professional learning, curriculum, instructional materials and activities, student placement, discipline policies, and communication with parents and guardians. When teachers were part of the decision-making process at a site, they reported greater collective efficacy (Goddard et al., 2004). Goddard et al.'s findings indicate a .41 standard deviation increase in teachers' PCE when they have had the opportunity to exercise collective agency; "That is, where teachers have the opportunity to influence important school decisions, they also tend to have stronger beliefs in the conjoint capability of their faculty" (p. 10). There is little doubt or argument that collective efficacy beliefs are a strong indicator of an organization's success and ability to meet their goals. A strong sense of collective efficacy strengthens individual efficacy, and low collective efficacy undermines individual efficacy. This mutual relationship explains the power of collective efficacy and desire to cultivate it in organizations (Goddard et al., 2004).

Figure 2

Proposed Model of the Formation, Influence, and Change of PCE



Donohoo et al. (2018) also reported that "evidence of impact" is a key way to cultivate collective teacher efficacy. What this means is that when teams invest in intentional instructional practices that result in positive student outcomes greater collective efficacy results. "Collective efficacy is a social resource that does not get depleted by its use; it gets renewed" (Donohoo et al., 2018, p. 42). They urged educators to recognize and understand their collective actions on student outcomes. They further explain that to truly understand collective teacher efficacy, in terms of collective impact, teams need to determine if changes in their practices positively or negatively impact student outcomes by examining very specific evidence of student learning. Some of these artifacts include assignments, tests, portfolios, and other formative and summative assessment material. Ultimately, the key is making the link between teachers' actions and student outcomes explicit. Then, teachers will understand the factors that lead to success and will also

understand that these factors are in their realm of control and they will replicate and refine them to ensure continued success (Donohoo et al., 2018).

Donohoo (2016) shared three enabling conditions that allow collective teacher efficacy to flourish in an organization. The first is advanced teacher influence, wherein teachers assume key leadership roles in their organizations and have the power to make decisions on school-wide issues in that role. Second, is goal consensus, which means collectively setting clear and specific goals that are challenging yet doable and then establishing processes to meet these goals, which helps educators achieve purposeful results. "It takes a special skill set to lead a group in collaboratively developing, communicating, and gaining consensus on powerful goals that transform learning, teaching, and leading" (Donohoo, 2016, p. 3). The third enabling condition of collective teacher efficacy is responsiveness of leadership. In organizations where leaders show concern and respect for their staff, both personally and professionally, and recognize that they have just as much responsibility to carry out duties and accomplish the goals of the organizations, collective teacher efficacy flourishes. The leader who continually seeks to understand and support their staff by removing barriers, gathering resources, and working to best support their team understand what responsive leadership is all about.

Principal Self-Efficacy and Collective Efficacy

Principals' beliefs and actions directly influence the beliefs and actions of their staff.

Therefore, principals with high self-efficacy or the belief that they have the knowledge, skills, and capabilities to positively lead a staff are more likely to foster those same beliefs in their staff, and together they can accept and persevere through the challenges inherent in the school improvement process. McCormick found (2001) that leaders with a strong sense of self-efficacy positively affect the goals of the organization and follower motivation. According to

McCormick, "Every major review of the leadership literature lists self-confidence as an essential characteristic for effective leadership (p. 23).

Additionally, Tschannen-Moran and Gareis (2007) also suggested that self-efficacy determines how leaders function and the influence they exert on others in their organization. Efficacious leaders develop and promote a sense of collective efficacy, which positively affects teaching and learning (Louis et al., 2010).

According to Leithwood and Jantzi (2008), a leader's perceived self-efficacy is key to developing the collective efficacy of the organization, which in turn becomes a catalyst for the success of that organization. They proposed that the way leaders develop collective efficacy is based on the intentional development of four core practices: setting direction, developing people, redesigning the organization, and managing the instructional program. The results of their study provide rich and surprising data on the effectiveness of these four core principles both at a school and district level.

Setting direction in an organization refers to the leaders' ability to "develop shared understanding about the organization (the district, the school) and its activities and goals that can undergird a sense of purpose or vision" (Leithwood & Jantzi, 2008, p. 507). When a leader is able to conjointly develop compelling and achievable goals, that is one of the quickest ways to develop the self-efficacy of individuals. The leader then attaches these goals to an overarching vision and generates excitement about working towards and achieving these goals collectively. The leader also monitors progress towards goals, communicates about this progress, and fosters collaboration in order to ensure the goals are met. Thus, what the organization believes in and is working towards is both clear and compelling.

After setting a vision, leaders must focus on developing the individual and collective capacity of their people. Developing people's capacity is critical to the success of an organization. Specifically, a principal must possess instructional leadership knowledge and high levels of emotional intelligence. Developing people requires that the principal or district office build capacity in their staff, and the one of the most effective ways of doing so is through relevant and on-going professional development and learning opportunities (Leithwood & Jantzi, 2008, p. 507).

Redesigning an organization is about developing three critical components: strengthening culture, modifying organizational structures and systems, and developing and supporting collaborative processes. Leithwood and Jantzi (2008), identified these components as factors critical to school improvement (p. 508).

Managing the instructional program involves working with the infrastructure of the organization—structures, procedures, and routines. "Specific practices included in this category include: planning and supervising instruction, providing instructional support, monitoring the school's progress (including student progress); and buffering staff from external demands unrelated to the school's priorities" (Leithwood & Jantzi, 2008, p. 508).

Interestingly, Leithwood and Jantzi's (2008) research indicates that the results of these four practices on leader self-efficacy, which is the leadership of the principal on their organization, and leader collective efficacy, which is the leadership of the district on their organization.

Table 1Results of Four Leadership Efficacy Practices

Leader self-efficacy	Leader collective efficacy	
(School leadership)	(District leadership)	
Managing the instructional program (.34)	Redesigning the organization (.61)	
Redesigning the organization (.28)	Developing people (.55)	
Developing people (.27)	Managing the instructional program (.53)	
Setting directions (.23)	Setting directions (.42)	

It is interesting to note that setting direction has typically been seen as the primary driver in increasing the success of an organization. Although it is an important practice, it was rated last in this study. Leithwood and Jantzi (2008) revealed that the other three core practices have more impact. These results could help leaders better understand which practices they may need to better develop their efficacy in and the establish a priority order for doing so.

Principal Leadership and Collective Efficacy

Donohoo et al. (2018) also provided suggestions from their research on the role of principals in developing collective efficacy. First, they asserted that school leaders must create a nonthreatening, evidence-based instructional culture. Principals do so by leading and engaging in conversations around "the meaning of impact, about the difference between achievement goals and progress, and about the use of dependable evidence" (Donohoo et al., 2018, p. 43). These conversations facilitate a shift in educators' thinking from task-related concerns to broader impact concerns. For example, shifting thinking from "How much time will it take to do x?" to "What was the impact when I did x?"

Second, leaders should establish a system that allows for formal, frequent, and productive teacher collaboration. Additionally, a leader must ensure that a high level of trust exists so that this collaboration time can be meaningful. The core of this collaboration is identifying and planning for student needs based on multiple sources of data. "When leaders ensure that dependable, high trust, collaborative structures are in place, teachers learn from and with one another and build common understandings" (Donohoo et al., 2018, p. 43).

Third, leaders who develop high levels of collective efficacy possess higher levels of emotional intelligence. These leaders have the pulse of their campus and employees. They are acutely aware of individual and team needs. They read between the lines and pay close attention to both verbal and nonverbal cues. They anticipate needs and potential problems and are proactive in planning for these. They are respectful to the feelings and viewpoints of others. They exercise situational awareness and manage tense situations with model behavior. This type of leader has the ability to have an incredible impact on their staff and the culture and collective efficacy in their organization (Donohoo et al., 2018.)

The Impact of Collective Efficacy on Student Achievement

Over the past 3 decades multiple researchers have found links between efficacy and student achievement. Bandura (1993) examined the positive role of collective efficacy beliefs on school culture and concluded that as collective efficacy increases so do school personnel's operative capacity to persevere and overcome obstacles in order to meet the needs of students and thus increase student achievement. Goddard et al. (2004) suggested that a school's strong collective efficacy has the power to mitigate perceived and real barriers, such as poverty, by increasing the degree to which teachers engage in their work and deliver their instructional practices to meet the needs of every student because they believe they have the power to make a

positive and substantial difference. Tschannen-Moran and Barr (2004) also found a positive relationship between collective efficacy and student achievement. Hattie's (2009) meta-analysis on factors related to student achievement also indicated that collective teacher efficacy is the primary factor related to student achievement. Additionally, Gray (2016) found that collective efficacy was a statistically significant predictor of student achievement. Thus, decades of seminal work all point to the power of efficacy in producing high levels of student achievement.

Leadership Styles

Multiple theories explain various styles of leadership, all of which have some merit and could influence a leader and thereby impact the collective efficacy of an organization. However, the question most relevant to this dissertation is which leadership style(s) have the greatest impact on cultivating and fostering high levels of collective efficacy in their organization? According to Donohoo et al. (2018), "The greatest power that principals have in schools is that they can control the narrative of the school" (Donohoo et al., 2018, p. 44). Are the priorities in the school focused on managerial tasks and doing things right the first time or are they focused on a shared vision that includes high expectations, rigorous and relevant goals with support, and collaboration? Leaders who most successfully develop high levels of collective efficacy do so by cultivating a high trust culture centered around working together in order to accomplish their goals. "Success lies in the critical nature of collaboration and the strength of believing that together, administrators, faculty, and students can accomplish great things" (Donohoo et al., 2018, p. 44). I is clear that the qualities and characteristics of both instructional and transformational leadership styles play a significant role in developing collective efficacy.

Instructional Leadership

The construct of instructional leadership is fairly recent. Hallinger (1985) examined the history and development of instructional leadership. In 1980 research on "instructionally effective elementary schools" emerged, and at that time instructional leadership was understood as a role carried out solely by school principals. This tenet held true throughout the 80s, and instructional leaders were often described as strong and directive, possessing the ability to turn a school around (pp. 2–3).

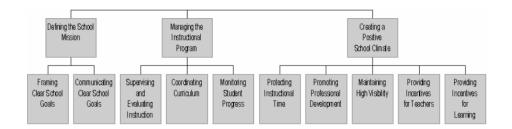
Over time, some key phrases were soon associated with instructional leadership: culture builders, goal-oriented, focused on student academic outcomes, leaders and managers, and hands-on principals. These principals were described as creating and fostering the conditions of high academic expectations. They were not only effective managers, but charismatic leaders and experts working alongside teachers on curriculum and assessments to improve teaching and learning. These principals were in the trenches. They ensured that what happened in schools aligned with the vision, mission, and goals of the school. These types of principals were seen as the minority. It has been nearly 40 years since the phenomena of "instructional leadership" was first introduced, and research provides clear models that make it no longer a phenomena but rather a leadership style that can be replicated.

The most referred to and used model of instructional leadership was introduced by Hallinger and Murphy (1985). This model "proposes three dimensions for the instructional leadership role of the principal: *Defining the School's Mission, Managing the Instructional Program, and Promoting a Positive School Learning Climate*" (Hallinger & Murphy, 1985, pp. 4–5). Within these three dimensions are 10 specific instructional leadership functions that help ensure that all three dimensions are carried out strategically and at high levels by the principal.

Figure 3 provides a clear roadmap of these dimensions and 10 support functions for becoming an instructional leader (Hallinger & Murphy, 1985).

Figure 3

Instructional Management Framework



Analysis and review of this framework shows what instructional leadership is and how to effectively be an instructional leader. Principals wear many hats and are expected to carry out a wide array of leadership and managerial tasks. This framework pinpoints where to focus a principal's time and energy for results that matter and have a positive impact on student achievement outcomes. Additionally, the research on self- and collective efficacy aligns closely to the framework for instructional leadership, sharing a foundation of similar beliefs and functions such as mindset, expectations, goal driven, and mastery modeling. It is important to note that the expectation of the principal as sole instructional leader is no longer valid. In fact, such a mindset actually proves to be an impediment as the burden is too heavy for one individual to carry alone. "Leadership must be conceptualized as a mutual influence process, rather than as a one-way process in which leaders influence others" (Hallinger, 2005, p. 15).

The principal as instructional leader sets the tone at the school, or creates and tells the narrative (Donohoo, 2018), and they should involve staff in cocreating a vision and mission and engage and support staff in knowing how to reach their individual and collective goals. Goddard et al. (2015) asserted that a leader who possesses strong instructional knowledge and a repertoire

of skills influences collective efficacy by increasing opportunities for teacher collaboration focused around instructional improvement. "Instructional leaders would typically set clear, time-based, academically focused goals in order to get the organization moving in the desired direction. They would take a more hands-on role in organizing and coordinating instruction" (Hallinger, 2005, p. 15).

Transformational Leadership

Transformational leadership was introduced in by James MacGregor Burns (1978), a political historian. He described this style of leadership as leaders and followers mutually helping each other advance to a higher level of morale and motivation, which is often accomplished through the leader's example and charisma. This theory of leadership was presented alongside and in contrast to transactional leadership. Transactional leadership is based on the theory that leadership is a series of exchanges, or transactions, between leaders and followers for individual and organizational gains. More simply stated, this leadership theory is based on a system in which ordinary expectations are communicated via the leader and the followers execute these expectations for fair compensation. Transactional leadership is also referred to as leadership by management. "In contrast, transformational leaders communicate a collective vision and inspire followers to look beyond their self-interests for the good of the group" (Turner et al., 2002, p. 305). Transformational leadership theory then is posited on a higher moral compass and the concept of shared vision and teamwork. The transformational leader inspires and motivates individuals and the team to produce what Bernard Burns (1985) described as extraordinary effort and achievement, even beyond the individual's own self-interest. Transactional and transformational leadership theories are commonly understood and presented conjointly, though

they are distinctly different. Many leadership scholars recognize that transformational leadership theory extends from transactional leadership theory (Weese, 1994).

Bass (1985) added to Burns' work on transformational leadership. He extended this leadership model from Burns' work on political leaders and applied it to the behaviors of leaders of organizations. Burns (1978) defined a transformational leader as "one who raises the followers' level of consciousness about the importance and value of desired outcomes and the methods of reaching those outcomes" (p. 141). According to Burns, a transformational leader is able to inspire and motivate their followers to transcend their own self-interests in order to meet the needs of the organization, and grow individually. This process allows the follower to improve and move upwards on Maslow's (1954) hierarchy of needs: from the lower level quadrant, meeting basic human needs, to the higher level quadrants, which include achievement and self-actualization (Bass, 2008, p. 619).

Bass (1985) extended Burn's (1978) original constructs of transformational leadership; the ideas of task importance and value, team and organizational goals above self-interest, activating individuals' own higher needs, and the roles of morale and charisma. Bass identified four specific components of this leadership style known as the four *I*'s: intellectual stimulation, individualized consideration, inspirational motivation, and idealized influence (Bass & Riggio, 2006). In contrast to Burn's philosophy, Bass argued that the four *I*'s are grounded in a moral foundation and have three core moral aspects—the moral character of the leader, the ethical values of the vision and the work, and the morality of the interaction and choices between the leader and followers.

Bass and Avolio (1997) created the Multifactor Leadership Questionnaire, which quantifies transformational leadership based on the four *I*'s (Weese, 1994). The first *I*,

intellectual stimulation, acknowledges "the capacity of leaders to awaken and excite the intellectual curiosities of followers" (Weese, 1994, p. 183). This is one of the first ways transformational leaders inspire their followers—on an intellectual basis. This inspiration sets the tone for all the other work as transformational leaders are able to get their followers to shift their paradigms around problem solving and their roles as followers. Traditional problems are now perceived as opportunities to grow, solve, and overcome challenges. Transformational leaders inspire curiosity and innovation in their organization and recognize that they are not necessarily the smartest or most equipped to solve the problem. Therefore, they engage and ignite their followers in this complex work and are not afraid to learn from them. "They understand that followers who are mentally challenged and appreciated are stimulated and energized. These followers adopt a level of excitement that is both refreshing for the organization and self-motivating for the employee (Weese, 1994, pp. 183–184).

The second *I* is individualized consideration, another important and essential element of transformational leadership. The transformational leader is acutely aware of and mindful of each individual employee. They seek to understand the individual perspectives offered by their followers. Additionally, they work to help each follower improve by building capacity individually. Transformational leaders recognize the strengths and weaknesses of each individual and then secure the resources and tools needed for improvement so that the follower may attain their goals. Bass's work focused on individual consideration, whereas Burn's work here focused on the leader having consideration for their followers as a team (Weese, 1994). Consideration is a key element of a transformational leader.

Inspirational leadership is the third *I*. "Transformational leaders inspire their followers, making them feel valued, appreciated, and critical to attaining the vision of the organization"

(Weese, 1994, p. 184), which is a significant shift from the transactional leader's managing the execution of tasks. Transformational leaders "add clarity and meaning to the vision of the organization by simplifying what needs to be done and communicating this information with such confidence and charisma that followers are aroused and excited about making the vision a reality" (Weese, 1994, p. 184). A leader who is able to accomplish this simplifying and communicating no doubt is transforming individuals and the organization.

The fourth I is idealized influence. It is essential that the transformational leader inspire and motivate their followers, but idealized influence is more than just the act of inspiring. Transformational leaders are respected by their followers, and their followers truly believe that their leader has both the competency and character to lead the organization. This belief is what idealized influence is actually about. The followers have full confidence in their leader and strive even harder to reach their full potential for the benefit of the organization. The leader is the utmost example in word and deed. This I has often been linked to charisma, which has been attributed as a key element of transformational leadership. Bass (1985) provided important clarification about the two. "There is more to being a leader than being a charismatic person. Specifically, transformational leaders instill confidence and commitment to a vision in followers who, through their contributions and efforts, validate a charismatic presence" (Weese, 1994, p. 185). Charisma, by itself, does not ensure a leader cares about their followers, is concerned about individual development, or is intellectually stimulating. Therefore, leaders may be charismatic and not produce the intended results of a transformational leader. Burns concluded by asserting, "Transformational leaders positively impact follower effort, satisfaction, and effectiveness" (Weese, 1994, p. 185). The four I's make it clear to see how a transformational leader may have

a tremendous impact on developing the collective efficacy in their organization. There is alignment between several core elements of both constructs.

Educational Equity Mindset and Beliefs

What is an educational equity mindset? It is a paradigm for thinking about, understanding, and ensuring that all students can learn and achieve at high levels. It is an asset-based approach that values the contributions of each individual and recognizes that each person has strengths. Therefore, this mindset focuses on building on an individual's strengths and the idea of growth over time. In the landmark civil rights case *Brown v. Board of Education* (1954), Chief Justice Earl Warren stated "In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education." Perhaps all students are now able to attend public school, but national data from high stakes initiatives indicate that a chasm still exists in the achievement between students from varying racial and economic classes, with students of color and poverty performing significantly below their peers. This achievement gap and has become synonymous with educational inequality. How does educational inequality relate to collective efficacy and why does it matter? (Zhao, 2016).

The role of self- and collective efficacy in teaching all students, including those from high poverty areas or with special needs, is critical in ensuring an equitable education for all students. Educators must first believe that every human being has the right to a rigorous and engaging education. Second, they must also believe that all students can learn at high levels. Teachers and organizations with high efficacy can close the achievement gap. They believe all students can learn and just as importantly that it is within their power and responsibility, individually and collectively, to make that happen. They are breaking down the perceived barriers to achievement in the areas of race, socioeconomic status, and ability/disability. In turn,

students are learning and achieving at high levels and educators are breaking cycles of generational poverty and overcoming the achievement gap. This progress is not yet happening systematically across the nation, but research indicates that is happening in certain classrooms, schools, and districts. Hence, it is possible. So, why is it happening in some organizations and not others? The research points to efficacy as a major contributing factor. In his seminal work, *Visible Learning*, Hattie (2009) analyzed and ranked factors contributing to student achievement. He asserted that collective teacher efficacy has the greatest impact on student achievement, with an effect size of 1.38, which exceeds 3 years' growth in 1 year with 0.40 the equivalent of 1 year's worth of learning and growth. Our educational system is not yet designed for educational equity. It is a system rooted in maintaining the status quo. Although conversations and policy reform are happening at the macrolevel, microlevel changes can occur much more rapidly. Leaders have the ability to lead this type of change in their organizations whether they are teachers, principals, or superintendents.

Collaboration

Working together in a community or team model has many names but the premise of the work is the same. The common goal is to foster a collaborative professional culture in which team members learn with and from one another in a structured and nonthreatening way. The work should be authentic and relevant, and in the educational setting this collaborative work focuses on teaching and learning. Collaboration is a critical element of collective efficacy. In order for a leader to develop collective efficacy, there must be a mechanism by which team members contribute and learn from one another intentionally and consistently. Such a system of collaboration, whether it is in person or online, generates a synergy of best practices and ultimately collective efficacy. "Team members confidence in each other's abilities and their

belief in the impact of the team's work are key elements that set successful school teams apart. (Donohoo et al., 2018, p. 1). Collaboration has the ability to make good teams great.

Donohoo and Katz (2019) identified four key ways collaboration drives collective efficacy. "Highly successful teams create the conditions for mastery by focusing on the following four processes: Learning together, cause-and-effect relationships, goal-directed behavior, and purposeful practice" (p. 27).

Learning together describes and sets the standard for professionals working collaboratively. Learning together extends far beyond the structure of a consistent meeting time and place to the more important intricacies of actually working together rigorously. Judith Warren Little (1990) referred to this type of collaborative work as joint-work, "deliberation over difficult and recurring problems of teaching and learning" (p. 520). A key aspect of this joint work is that the member's work is interdependent—they value each other's contributions for the continued success of the group. There is a great sense of shared work and responsibility in order to achieve the desired goals of the group. "Professional autonomy and discretion reside collectively with the faculty; put more forcefully, each one's teaching is everyone's business and each one's success is everyone's responsibility" (Little, 1990, p. 523).

The second key to developing an effective team is the analysis of cause and effect relationships. High functioning teams consistently examine the evidence of student learning and seek to understand how those results were achieved. They continually ask questions about the impact of the strategies they are using on student learning. They then replicate the mastery experiences, which shows evidence of learning and refine or eliminate whatever is not working. They continually engage in this cycle of analyzing cause and effect relationships related to

teaching and learning. They are what many refer to as data driven. They backwards plan and at an even deeper level understand the impact of their teaching.

Goal-directed behavior is the third key practice of effective teams, specifically the focus on mastery goals in addition to standard performance driven goals. "Mastery goals, by contrast, orient teams towards acquiring new skills, trying to understand their work, and improving their collective capacity" (Donohoo & Katz, 2019, p. 28). When mastery goals are met, performance goals are usually also met.

Purposeful practice is the fourth key to developing a highly effective team. The only way to become better at something is to practice it purposefully. This means setting mastery goals, working individually and collectively at these goals, analyzing both the results and the process that produced the results, and seeking feedback in order for continual improvement. Feedback may come from multiple sources—team members, instructional coaches, administrators—but the most important feedback comes from the student(s) or learner(s). "As high powered teams use feedback to make purposeful adjustments in their practice, learning is enhanced, improvement is realized, and efficacy increases" (Donohoo & Katz, 2019, p. 29).

Collective teacher efficacy is a powerful paradigm for increasing student achievement. Research shows that collective teacher efficacy matters more than barriers to achievement such as race, income, and ability (Goddard et al., 2004). People and organizations who believe in their ability to produce a given result are able to accomplish it, even in the face of great challenges, obstacles, and barriers. Collaboration, or joint-work, is a powerful vehicle by which to accomplish this work. Teams that engage in the four key drivers are more likely to experience success. These successes become mastery experiences they desire to replicate. The compilation of many mastery experiences develops collective efficacy in a team or organization. "As teams

recognize that their efforts are paying off, they begin to increase their confidence in each other and, as a result, push each other to do even greater things" (Donohoo & Katz, 2019, p. 29).

Teacher Leadership and Collective Efficacy

Another key contributor to collective efficacy is teacher leadership or advanced teacher influence, as described by Donohoo (2016). This leadership or influence involves teachers assuming specific leadership roles in the organization and being empowered to make decisions on school-wide initiatives and problems. Being involved in this way allows teachers to engage in building mastery experiences, which increases their confidence and ability to contribute and persevere. The more teachers are involved in the creation of their own mastery experiences, the greater confidence they gain. This confidence directly impacts their self-efficacy and the collective efficacy of the organization. The ability to advance teacher leadership lies greatly with the principal or leader of the organization. Leaders seeking to build collective efficacy across and in their organization recognize this influence and empower individuals to lead and contribute in meaningful, relevant, engaging, and oftentimes challenging work with support and feedback. (Donohoo, 2016). Teacher leaders are often associated with a collaborative school culture and viewed as agents of change possessing the ability to influence their peers and thus improve practice (Flood & Angelle, 2017).

Trust

Trust is a pivotal factor in every relationship and organization and is fundamental to the functioning of that relationship and organization. At an organizational level, trust is recognized as a vital element. It is a necessary component of both communication and cooperation in an organization and the foundation of cohesive and productive relationships. When trust exists, members of an organization have confidence in each other's words and deeds. Trust also allows

for ease in conducting the transactional exchanges inherent in an organization. In the case of education, trust is a key ingredient for success (Tschannen-Moran & Hoy, 2000).

Although trust engenders feelings of ease, security and, group satisfaction over self-interest, distrust does the opposite. "Distrust tends to provoke feelings of anxiety and insecurity, causing people to feel uncomfortable and ill at ease and to expend energy on monitoring the behavior and possible motives of others" (Tschannen-Moran & Hoy, 2000, p. 550).

Trust is a construct that increases organizational effectiveness. Organizational effectiveness is a product of collective efficacy. Therefore, collective efficacy is rooted in the construct of trust. Tschannen-Moran and Hoy (2000) defined trust as "one party's willingness to be vulnerable to another party based on the confidence that the latter party is (a) benevolent, (b) reliable, (c) competent, (d) honest and (e) open" (p. 556). In a school setting, trust is based on the relationship between the principal and the teachers. Trust is the variable that distinguishes a team that works from a compliance standpoint versus from a place of commitment (Adams & Forsyth, 2009).

In the presence of trust, both individuals and teams are willing to be vulnerable and tackle teaching and learning with the mindset that learning is about challenging oneself and that mistakes are inevitable and opportunities to learn and improve in order to gain mastery experiences and to reach the goals of the group. This willingness increases efficacy, and individuals and teams begin to believe that they can contribute and overcome small and large obstacles together. Flood and Angelle (2017) indicated that there is a direct link between the levels of trust in an organization and the collective efficacy of that organization.

Summary

Collective efficacy is the single most powerful predictor of student achievement. Self-efficacy is the foundation for all learning and growth. Together, learning and growth create a recipe for success. "Success lies in the critical nature of collaboration and the strength of believing that together, administrators, faculty, and students can accomplish great things. This is the power of collective efficacy" (Donohoo et al., 2018, p. 44).

CHAPTER 3: METHODOLOGY

Introduction

The question this phenomenological study examined is "What leadership characteristics, practices, and styles do principals of high collective efficacy schools do/engage in? How do these principals believe they build high levels of collective efficacy among their staff?" In order to examine this question, this study used a mixed methods design conducted in two phases.

Phase 1 of the research consisted of maximum variation sampling of certificated staff from 24 schools in four districts via a survey. These teachers answered the Teacher Collective Efficacy Scale (CE-Scale), a 21-item Likert scale collective efficacy survey, to identify the schools reporting the highest levels of collective efficacy. In Phase 2 of the research, the results of this survey were used to determine homogenous sampling by identifying principals of high collective efficacy schools. All principals were then administered the Principal Self-Efficacy Survey. The results of the Principal Self-Efficacy Survey were then used to identify and individually interview four to six principals who scored high, medium, and low on both surveys.

The interviews were recorded to ensure reliability of the results. The purpose of interviewing an array of principals of schools reporting low to high collective efficacy was for generalizability of the results. Because this is a phenomenological study, I adhered to Creswell and Creswell's (2018) six steps for analysis and representation of phenomena (p. 193).

Figure 4

Creswell's Six Steps for Analysis and Representation of Phenomena.



Setting and Participants

The schools identified were limited to public K–12 schools in southern California representing all socioeconomic statuses. The schools were chosen from four districts where I had access to professional connections. The access was an important aspect of the selection of the setting and participants for multiple reasons. First, it provided a greater opportunity for participation in the survey. Second, the districts represented multiple student demographic groups. Third, I had physical access to the sites and principals for follow up interviews.

Sampling Procedures

I contacted my professional contacts in four districts in southern California to obtain permission to survey teaching staff. One condition of the study was that only teaching staff at schools where the principal had been the leader for 3 or more years were invited to participate. Because this study's primary research questions is about leadership practices, it was essential

that the perceived collective efficacy be related to the current school leader. Thus, the requirement of the leader being at their site for at least 3 years. This condition helped ensure that the collective efficacy being reported aligned to the current leadership practices in place. This provided access to 24 schools across four districts.

Table 2

Proposed Data Collection Sites

	# of	
District	Schools	Approximate # of Certificated Staff
A	2	50
В	6	150
C	13	325
D	3	75
Totals	24	600

The results of this survey were then used to identify the schools reporting low, medium, and high levels of perceived collective efficacy. All principals were then invited to complete the Principal Self-Efficacy Survey. Analysis of both the Teacher Collective Efficacy and Principal Self-Efficacy Surveys then identified who to interview for the qualitative aspect of the study. The goal was to interview the four to six principals of the school's reporting low, medium, and high collective efficacy.

Sample—District Demographics

All districts included in this study are located in Southern California and are considered large school districts based on their student populations. District A is a high performing district. Their California Department of Education (CDE) dashboard achievement color is green, or meeting standards, in both English language arts (ELA) and math. They are considered a large

district serving a population of more than 10,000 students, with less than 10% of their students being English learners, and less than 50% receiving free or reduced lunch. District B is also considered a large district serving more than 10,000 students. Their CDE dashboard achievement color is also green, or meeting standards, in both ELA and math indicating that they are also considered a high achieving district. Less than 50% of their students receive free or reduced lunch and less than 10% are English learners. District C is also considered a large school district in California. Their CDE dashboard achievement color is yellow, or below standard, in both ELA and math. More than 50% of their students receive free or reduced lunch and more than 10% of the student population are English learners. District D is also considered a large school district in California. Their CDE dashboard achievement color is yellow and orange, or below standard, in both ELA and math. More than 50% of their students receive free or reduced lunch and more than 10% of the student population are English learners. These four districts are very diverse and provided me with access to a large number of teaching staff and principals for this study.

Instrumentation and Measures

The instrument used for the teacher survey was the Collective Efficacy Scale or CE-Scale developed by Roger Goddard and Wayne K. Hoy. This is a valid and reliable tool commonly used to determine the collective efficacy of teaching staff at schools. It contains 21 Likert scale questions with six possible responses ranging from agree to disagree. In addition, questions about participants demographics and one open-ended question were also added to the Teacher Collective Efficacy Survey. Here are the 21 questions:

- 1. Teachers in the school are able to get through to the most difficult students.
- 2. Teachers here are confident they will be able to motivate their students.

- 3. If a child doesn't want to learn teachers here give up.
- 4. Teachers here don't have the skills needed to produce meaningful student learning.
- 5. If a child doesn't learn something the first time teachers will try another way
- 6. Teachers in this school are skilled in various methods of teaching.
- 7. Teachers here are well-prepared to teach the subjects they are assigned to teach.
- 8. Teachers here fail to reach some students because of poor teaching methods
- 9. Teachers in this school have what it takes to get the children to learn.
- 10. The lack of instructional materials and supplies makes teaching very difficult.
- 11. Teachers in this school do not have the skills to deal with student disciplinary problems.
- 12. Teachers in this school think there are some students that no one can reach.
- 13. The quality of school facilities here really facilitates the teaching and learning process.
- 14. The students here come in with so many advantages they are bound to learn.
- 15. These students come to school ready to learn.
- 16. Drugs and alcohol abuse in the community make learning difficult for students here.
- 17. The opportunities in this community help ensure that these students will learn.
- 18. Students here just aren't motivated to learn.
- 19. Learning is more difficult at this school because students are worried about their safety.
- 20. Teachers here need more training to know how to deal with these students
- 21. Teachers in this school truly believe every child can learn.

My methodology was conducted in two phases. In Phase 1 approximately 600 certificated staff members will be eligible and invited to participate in the Teacher Collective Efficacy Survey. All principals will be invited to participate in the Principal Self-Efficacy Survey. The results of both of these surveys will then be used to identify the principals, this study's unit of analysis, to be surveyed and interviewed in Phase 2 of the data collection process. The Principal Self-Efficacy Survey contains 18 Likert scale questions with six possible responses ranging from agree to disagree. In addition, questions about participants demographics and one open-ended question were also added to the Principal Self-Efficacy Survey. The survey questions ask "In your current role as principal, to what extent can you"

- 1. facilitate student learning in your school?
- 2. generate enthusiasm for a shared vision for the school?
- 3. handle the time demands of the job?
- 4. manage change in your school?
- 5. promote school spirit among a large majority of the student population?
- 6. create a positive learning environment in your school?
- 7. raise student achievement on standardized tests?
- 8. promote a positive image of your school with the media?
- 9. motivate teachers?
- 10. promote the prevailing values of the community in your school?
- 11. maintain control of your own daily schedule?
- 12. shape the operational policies and procedures that are necessary to manage your school?
- 13. handle effectively the discipline of students in your school?

- 14. promote acceptable behavior among students?
- 15. handle the paperwork required of the job?
- 16. promote ethical behavior among school personnel?
- 17. cope with the stress of the job?
- 18. prioritize among competing demands of the job?

The data from the Principal Self-Efficacy Survey determined which principals to conduct the one-on-one interviews with. The purpose of the principal interviews are to examine the relationship between the principals' leadership and the high levels of collective efficacy reported at their schools in order to identify and describe the leadership characteristics, practices, and styles that built these high levels of collective efficacy.

The Criteria of Soundness table (Gibbs, 2012) provides a bridge between quantitative research protocols and qualitative research protocols. The links between both types of research are made explicit and the reciprocity between them strengthen qualitative research. In addition, this table provides a universal way for qualitative researchers to talk about their research in relation to established protocols for quantitative research. This tool is very helpful in designing and analyzing research.

Gibbs (2012) further described the stages of research referencing. It is critical that researchers are familiar with these terms in order to ensure writ large in their work. Normative accounts of research detail how the research should be done, whereas descriptive accounts of research describe how the research is actually done. Gibbs cautioned researchers that far too often researchers write up the normative account, how the research should have been done, and fail to publish the descriptive account, or how it really was done. As a researcher, it is essential to maintain honesty in all aspects of the research.

Gibbs (2012) finished his discussion by bringing us full circle back to the start of any great research and that is developing the research question(s). He acknowledged that this is very difficult and yet essential to research. The question(s) asked in research determine the answers we receive. As researchers, we must be sure we are asking the right question(s) (Gibbs, 2012).

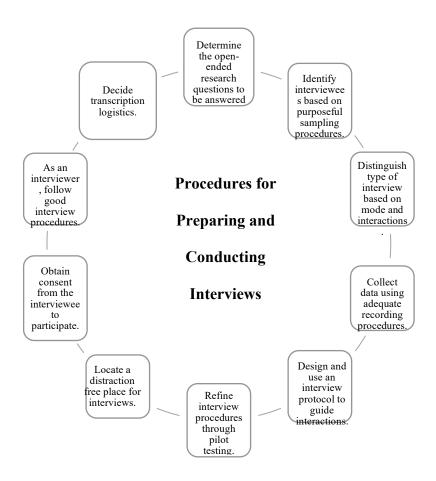
Reliability

Gibbs (2012) explained the fundamental criteria of qualitative research—reliability, validity, generalizability, and credibility. Shipman (1988) identified reliability as the first criterion of research and asked the critical question "If the investigation had been carried out again by different researchers using the same methods, would the same results have been obtained?" (p. ix). Reliability is essential to all research and is the foundation the rest of the research builds on. During this phase of research it is essential to be aware of and use protocols that bring to light and control for researcher bias, subject error, and subject bias.

The Teacher Collective Efficacy Survey to determine collective efficacy and Principal Self-Efficacy Survey to determine principal efficacy are tools used by many researchers and have been vetted to ensure consistent result. Use of these tools ensured reliable results in identifying schools with the highest levels of CE. To ensure reliability of the interview data, I adhered to the interviewing protocols outlined by Creswell and Creswell (2018, p. 166, Figure 7.4). Figure 5 portrays the procedures for preparing and conducting interviews.

Figure 5

Procedures for Preparing and Conducting Interviews



Although the skill of interviewing may seem a straightforward technique, many special factors require special attention and purposeful execution, especially in qualitative research in which the interviewees are the vessels of data. Creswell and Poth (2018) echoed these sentiments, "The key idea behind qualitative research is to learn about the problem or issue from participants and engage in best practices to obtain that information" (p. 44). Additionally, they added, "The topics about which we write are emotion laden, close to people, and practical" (p. 52).

An interviewer must show respect; be nonjudgmental; provide pauses and time for thinking; use open-ended questions, prompts, and probes as needed; and ensure the interviewees feel protected. A great interviewer is also flexible with their questioning, building off the responses and body language of the interviewees. If the interviewer is engaged, actively listening, and paying attention to body language, the interview becomes a "conversation with a purpose" (Holland & Elander, 2013). When all of these components are thoughtfully executed the likelihood of obtaining authentic data is high. This was my goal and the steps I followed to reach this goal.

Holland and Elander (2013) described the essential factors of a great qualitative interview process. They emphasized the essential need for the interviewer to listen. "Let the interviewee talk, feel comfortable, and really tell you about their experiences" (0:20-0:28). They explained that the responses to the interview questions are the data of qualitative research. They recommended that the setting of the interview be comfortable, and before the actual questioning begins it is essential to set the context for the interview and build rapport. Then, the interviewer should start the dialogue with easy questions and conversation, building up to more difficult questions or topics. The whole interview should feel very natural and elicit as much information from the interviewee(s) as possible.

Validity

Seeking truth, also known as validity, is the purpose and second criterion of research. Once reliability is established, then a researcher seeks the answers to the questions they have. Gibbs (2012) posed this question in regards to validity, "Does the evidence reflect the reality under investigation? Has the researcher found out what s/he thinks or claims it's about?" (7:34–7:47). Maxwell (2013) described validity as "the correctness or credibility of a description,

conclusion, explanation, interpretation, or other sort of account" (p. 122). Validity is concerned with truth, gathering and understanding the truth of a question or reality. Researchers must be aware of four threats to validity: history, testing, instrumentation, and regression. Knowing these threats allows a researcher to better control for them and get to the truth of their research.

To ensure validity, I used the triangulation of data, i.e. "the collection of multiple data sources from a variety of resources" (Gibbs, 2012, 12:25–12:28), which helped me ensure both validity and reliability. The triangulated data I used included surveying, interviewing, and documenting, all to strengthen the results and generalizability of this study.

Plan for Data Collection

According to Creswell (2013) there are three primary components of coding qualitative data. First, a researcher must prepare and organize the data. Second, the data are then reviewed and analyzed to determine its central themes. Third, the researcher determines the best way to report these findings—through data, figures, tables, visuals, etc. One of the biggest hurdles of coding qualitative data is the first step of organizing all of the data, and qualitative research has the potential to produce an abundance of data, which Creswell described as voluminous. Knowing this, having clear systems for organizing the data will make analyzing and representing it much easier.

I used a variety of tools and procedures to help compile the data. First, I used a codebook throughout the research process to plan, track, and reflect on the processes and data while also enabling others to replicate the study. I recorded the interviews to ensure accuracy. I tracked and coded all information specific to each school and district in a codebook to enable tracking and correlating all materials to their corresponding schools and districts minimizing the chance of error. I used Google Meets to conduct and record each interview and Ebby to transcribe the

interviews. Once all of the data were compiled, I followed the steps for coding and organizing the qualitative data into themes and then reported on them.

Data Analysis

Data analysis involves open coding, axial coding, and selective coding. I used open coding to disaggregate and visually represent the data by nodes and chunks. I had three other doctoral students identify themes in order to help reveal the nodes and relationships in the data, which is axial coding. This next step in coding was to identify the central phenomena and then determine their causes. Through selective coding, I told the story of the themes that emerged from the research and their interrelationships (Creswell & Creswell, 2018, p. 318). I used a visual graph and other representation to synthesize the information and visually tell the story of the phenomena of principal leadership in developing high levels of collective efficacy to positively and significantly impact student achievement.

Creswell (2013) described qualitative research as "largely intuitive, soft, and relativistic" and noted "qualitative data analysts fall back on the three *I*'s—insight, intuition, and impression" (p. 185). Representing the data visually allowed me to convey rich, deep, connected and complex ideas in easy to see and understand ways. I took great satisfaction in synthesizing complex ideas in easy to remember visuals or stories.

Ethical Issues

According to Gibbs (2012), the main goal of qualitative research is to capture and understand what is really happening and why it is happening. Thus, qualitative researchers work intentionally to ensure that they are aware of their own biases as a researcher. They must consistently ask themselves two questions: "Are we asking the right questions for our research? Did we get the information right?" (Gibbs, 2012, 5:42–4:43). To ensure a researcher accounts for

their biases, they continually use an established set of protocols to review, reflect, and revise their research.

The biases I had in relation to this study directly correlated to my current role as a site principal. My passion for this role is directly related to the primary research question of this dissertation. I wanted to better understand how principals develop high levels of collective efficacy among their staff to positively and significantly impact student achievement. I plan to apply and share the results of this study with the public. The results should be transferrable to leaders of any organization and not necessarily specific to education as the actions of the principals parallel those of leaders in other organizations.

Summary

In summary, "considerable evidence has now accumulated about the significant contributions that positive efficacy beliefs on the part of those in many different roles make to such important personal and organizational outcomes as job search success, increased task performance, improved attendance, and increased academic achievement" (Leithwood & Jantzi, 2008). This study seeks to describe the phenomena of high levels of collective efficacy at public K–12 schools, under the leadership of the site principal, that are obtaining positive and significant student achievement outcomes. The unit of analysis for the study is the principal. The primary research question is "What leadership practices and styles do principals of high collective efficacy schools use? How do these principals believe they built high levels of collective efficacy among their staff?"

CHAPTER 4: RESULTS

Introduction

This study employed a mixed-methods approach using quantitative and qualitative research design methods. The major findings from the research are presented in this chapter and the data are presented in written, graph, and table format. After Concordia's Institution Review Board approval process in February 2020, the data collection process began in mid-March, 2020, and concluded on June 22, 2020. It is interesting to note that at this exact time there were worldwide closures due to the COVID-19 pandemic, which changed the way I contacted, distributed, and collected the data.

The Teacher Collective Efficacy and Principal Self-Efficacy Surveys were distributed electronically, via email, using a Google form. Due to the firewalls in place in each district that prohibited staff from receiving emails from a nonemployee, I provided each principal of the 29 participating schools with a link to the survey, along with verbiage to introduce myself and explain the purpose of the study and survey, as well as a guarantee of the confidentiality of the results; 19 of the 29 school principals then distributed the Teacher Collective Efficacy Survey to their teaching staff via email. The participation rate was 65.5%.

Table 3Teacher Collective Efficacy Survey Participation

	Total # of	# of schools identified with a principal with 3 or more years at their	# of schools that participated in the Teacher Collective	Participation
District	schools	current site	Efficacy Survey	rate
A	26	7	2	28.50%
D	22	13	9	69.20%
В	18	6	5	83.30%
C	5	3	3	100%

Principals were clearly directed to provide the Teacher Collective Efficacy Survey only to their certificated teaching staff. The collected responses verified that only teaching staff participated in the survey. The number of teaching staff varies at each site and I did not have access to this information, but I estimated the average number of certificated teaching staff at each school to be 25 based on a review of staffing information available on each school's website. Thus, the Teacher Collective Efficacy Survey was made available to approximately 475 certificated teaching staff from 19 schools. A total of 185 Teacher Collective Efficacy Surveys were returned completed, yielding a participation rate of 38.9%.

In Phase 1 of the data collection, the Teacher Collective Efficacy Survey was distributed to teachers from in four districts and 19 schools in southern California. A very important condition that was determined during my preliminary defense was that only teaching staff at schools where the principal has been the administrator for 3 or more years would be eligible to participate in this study. This condition was put in place in order to ensure the collective efficacy that is being reported is in fact related to the current principal. I worked with an identified point of contact in each district to obtain permission to conduct research in that district and to identify the school sites eligible to participate in the research based on the condition described above (principal in place for 3 or more years). Across the four districts, there are a total of 71 schools, 29 of which had a principal at their current site for at least 3 years, making 40.8% of the schools eligible to participate. A total of 19 schools did actually participate.

The results of the Teacher Collective Efficacy Survey data then indicated which schools were reporting high collective efficacy and therefore which principals to survey. The second condition in place required that at least eight teachers from a given site completed the survey in order to ensure a valid and representative sample size for each school. Therefore, of the 19

schools that participated in the Teacher Collective Efficacy Survey, only 10 of those schools met the participation rate of a minimum of eight survey responses. Their data were used and reported on in this chapter, bringing the total survey sample size to 134 or a 28.2% participation rate. In total, 10 schools met both the required conditions. This meant that 10 principals would need to complete the Principal Self-Efficacy Survey. All 10 principals did complete the Principal Self-Efficacy Survey for a 100% participation rate.

In Phase 2 of the data collection process, the results of both surveys, Teacher Collective Efficacy and Principal Self-Efficacy Surveys, were compared to each other and eight of the principals were identified and invited to participate in a one on one virtual interview with me. All five of these principals participated in the interview process for a participation rate of 62.5%.

This chapter begins with the results from the quantitative findings of the research, collected during Phase 1 of the research. The remainder of the chapter includes the qualitative data findings from the open-ended survey questions, posed to teachers and principals, as well as the data from the five principal interviews. A variety of statistical measures were used to analyze the data (Pearson Correlation, ANOVA, a Codebook, and open and axial coding).

Participant Demographics

School and participant data from the 10 schools that participated in the Teacher Collective Efficacy Survey and qualified to be included in the findings are as follows:

Table 4
School Demographic Data

Characteristic	Number	%
Gender		
Male	16	11.94
Female	118	88.05
Ethnicity		
White	108	80.59
Latino	15	11.19
Other	11	8.2
Age		
20–29	5	3.73
30–39	27	20.15
40–49	44	32.84
50-59	44	32.84
60–69	14	10.45
Years of Teaching		
1 to 5	11	8.2
6 to 10	26	19.4
11 to 15	31	23.13
16 to 20	25	18.66
21 to 25	25	18.66
26 to 30	11	8.2
31 to 35	4	3
35 to 40	1	0.74
Credential		
Clear	126	94.02
Other	8	5.98

Note. N = 132.

In total, 134 teachers from 10 schools completed the Teacher Collective Efficacy Survey; 88.05% of the participants were female and 11.94% were male. At 80.59%, the majority of the survey participants identified themselves as White, 11.02% as Latino, and the remaining 8.2% as another ethnicity. Additionally, the majority of the participants were between the ages of 40 and

59 years of age, 27 participants were between the ages of 30–39, 14 were between the ages of 60–69, and only 5 participants were between the ages of 20–29. The largest group of participants, 31, had been teaching for 11–15 years. Two more groups of participants, at 25 each, had been teaching for 16–20 and 21–25 years. Another 26 participants had been teaching for 6–10 years. And the remainder of the participants, 11, had taught for less than 5 years or more than 30 years providing for a wide array of teaching experience with the majority having at least 10 years of experience. Almost all of the participants have a clear teaching credential. Only eight, or roughly six percent, have a credential other than clear.

Table 5 is a snapshot of each of the 10 schools' demographic data. These data were obtained from each school's website as well as the California Department of Education's website. These data were helped me understand the diverse and unique circumstances at each school in relation to their survey responses. Additionally, based on these data, it is clear the 10 schools represent an array of the variety of demographics present at schools. The mean student population of the 10 schools was 832 students, with the largest school's population at 1,333 students and the smallest school's population at 611 students. The mean percentage of English learner (EL) students was 10.6%, and 47.7% was the mean of socioeconomically disadvantaged students or students participating in the free or reduced-price lunch program. The mean of students who were proficient/advanced or met/exceeded grade level standards in ELA was 52.7%, whereas the mean of students who were proficient/advanced or met/exceeded grade level standards in mathematics was slightly less at 47.5%. Nearly half of all the students in all 10 schools, across four districts and two counties, lived in poverty and roughly half met or exceeded grade level standards. Also, 10% of these students were classified as EL. These data are important, as John Hattie's work demonstrates that organizations with high collective efficacy

have the ability to overcome poverty, a factor that in the past was understood to be fixed and detrimental to student achievement.

Each of these 10 schools had at least 8 teachers participating in the Teacher Collective Efficacy Survey with a principal in their position for at least 3 years.

Table 5
School Demographic Data

			% of students eligible for free or	ELA- %	MATH- %
District/ School	Student Population*	% of EL Students**	reduced lunch***	proficient or advanced****	proficient or advanced*****
A-1	900	5%	20%	80%	70%
B-1	900	10%	40%	70%	65%
B-2	800	5%	30%	75%	65%
B-3	800	15%	50%	70%	60%
B-4	800	5%	40%	65%	55%
C-1	600	20%	60%	45%	40%
C-2	600	15%	50%	55%	40%
D-1	700	10%	80%	40%	40%
D-2	1300	10%	70%	40%	25%
D-3	900	5%	40%	65%	60%

Note. *rounded off to nearest 100 students. **rounded off to nearest 5%. ***rounded off to nearest 10%. ****rounded off to the nearest 5%. ****rounded off to the nearest 5%.

In Phase 2 of the data collection process, I administered the Principal Self-Efficacy Survey to the principals of the 10 large schools. Based on the literature review, leaders who have higher self-efficacy tend to lead organizations to higher levels of collective efficacy. The principals' demographic data from the Principal Self-Efficacy Survey are included in Table 6. A total of 10 principals from across four districts and two counties participated. Half the principals were women and half were men; 70% identified as White, 20% as Latino, and 10% as other. Three had been in their role for 3 years and three for 4 years, with one in their fifth year, two in their seventh, and one in their eighth. In regard to education, 90% had obtained a master's degree and 10% had a bachelor's degree only.

Table 6

Principal's Demographic Data

Characteristic	Number	%
Gender		
Male	5	50
Female	5	50
Ethnicity		
White	7	70
Latino	2	20
Other	1	10
Years as principal (at cur	rrent site)	
Three	3	30
Four	3	30
Five	1	10
Six	0	0
Seven	2	20
Eight	1	10
Highest level of education	on	
Bachelor's (only)	1	10
Master's	9	90

Note. N = 8.

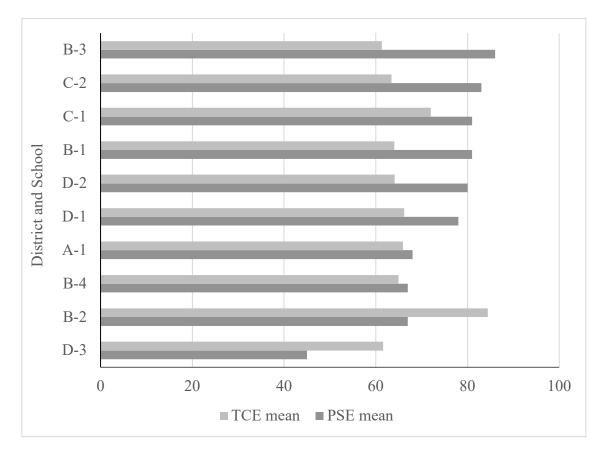
Quantitative Results

To score the Teacher Collective Efficacy responses, 10 questions needed to be reverse scored (3, 4, 8, 10, 11, 12, 16, 18, 19, and 20). Then, all 21 of the totals were added together for a possible total sum of 1890. The higher the total sum, the higher the collective efficacy of the site. Because the number of participants completing each survey varied by school site, the Teacher Collective Efficacy means were calculated in order to compare each school's self-reported collective efficacy. I used an ANOVA in StatPlus to calculate the means for each site. Although the Teacher Collective Efficacy Survey provided interesting statistical data about each of the 21 items on the survey by school, the purpose of administering this survey was to identify which schools perceive they have overall high collective efficacy, not to analyze which aspects of collective efficacy are perceived higher or lower by the participants. Schools reporting higher collective efficacy were then identified, allowing me to pinpoint which principals to interview in order to identify and explain the leadership characteristics, practices, and styles that they believe most contributed to the collective efficacy of their site. Therefore, the Teacher Collective Efficacy Survey was used as a tool to gain access to principals for further analysis and explanation of the primary research question.

A second tool I used was the Principal Self-Efficacy Survey. Based on a wide body of current literature, there is a link between a leader's own self-efficacy and the organization's collective efficacy. The Principal Self-Efficacy Survey was therefore administered to all 10 principals of the schools who qualified to be included in the findings. Like the Teacher Collective Efficacy Survey, the Principal Self-Efficacy Survey items were first summed and then a one-way ANOVA was run to determine the mean scores from the survey. Figure 6 compares these mean scores.

Figure 6

Teacher Collective Efficacy and Principal Self-Efficacy Means by District and School



The data show that schools vary in their collective efficacy from a mean score of 61 to 84, a range of 23 points, and a median score of 64.5. This dataset is bimodal, reporting 64 and 66 as the two modes of the set. Hoy and Spero (2005) noted that for high collective efficacy, the higher the total sum and mean score, the higher the collective efficacy of the organization. One of the 10 schools had a mean score of more than 80, reporting the highest collective efficacy of the 10 schools. Another school had a mean score of more than 70. The other eight schools reported collective efficacy mean scores between 61 and 68. The mean of the mean scores was 66.7.

There was even greater variance in the Principal Self-Efficacy Survey results. Principals reported self-efficacy mean scores between 45 and 86, a range of 41 points, with the median

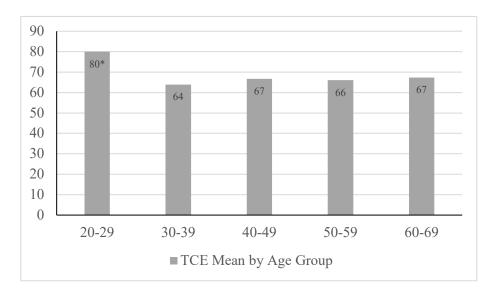
score being 79. Because the median score was so high, the majority of the principals selfreported higher self-efficacy. However, there was one outlier. One principal reported a mean score of 45, which was 22 points fewer than the second lowest score of 67. This dataset was also bimodal, reporting 67 and 81 as the two modes of the set. Comparing the means of these two surveys allowed for very thoughtful analysis of the results of both surveys. Based on these findings, I decided to interview principals whose Teacher Collective Efficacy and Principal Self-Efficacy Survey mean scores were closely aligned as well as principals whose mean scores had the most discrepancy. At first, five principals were identified to be interviewed. Then, three more were added in order to obtain as much information as possible about the leadership characteristics, practices, and styles that build high levels of collective efficacy. In all, I wished to interview eight principals. In total, five participated in an interview with me. These interviews were essential to answering my primary research question. All other data collection up to this point was also necessary, and the findings were valid and supported the overall findings, but worked more so as a funnel to gain access to these specific principals and their beliefs about the leadership characteristics, practices, and styles that they believe have built high levels of collective efficacy in their organization.

Moderate to Significant Quantitative Findings

The one-way ANOVA revealed a moderate finding when the Teacher Collective Efficacy results were run with the age demographic. The data reveal that teachers 20–29 years old are associated with a higher Teacher Collective Efficacy mean score. In this finding, their mean score is 80, which is 13 points higher than then next mean score of 67 and 16 points higher than the lowest mean score of 64. The lowest mean score is associated with teachers 30–39. Teachers 40–69 share a common mean score of 66.6. Figure 7 shows the results of this significant finding.

Figure 7

Teacher Collective Efficacy Mean Scores by Age.



Note. **p*<0.05.

The Principal Self-Efficacy Survey results also revealed two findings. The Pearson Linear Correlation was used to compare each principal's self-efficacy with each school's demographic data. First, there is a moderate inverse correlation between the principal's self-efficacy and the socioeconomic status of the school, r(8) = .43, p < .05). Second, there is a strong inverse correlation between the principal's self-efficacy and EL students, r(8) = .71, p < .05). Therefore, principals with higher efficacy have a moderate inverse impact on the socioeconomic status of the school and a strong inverse impact on English learners.

Table 7 *R-Values for Principal Self-Efficacy*

Demographic Data	R-value	Correlation
EL	-0.71263**	strong
SES	-0.42887**	moderate

Note. **p < 0.01.

Qualitative Results

Both the Teacher Collective Efficacy and Principal Self-Efficacy Surveys included one open-ended question each. The Teacher survey asked, "What are the factors that most prominently impact my school colleagues in their role as teachers?" There were 126 teacher responses collected and analyzed with a total of 2,781 words. These responses were organized into 361 chunks of qualitative data by assigning an initial code to them through an open coding process. This process was repeated four separate times over 1 month to ensure reliability and validity. This reiterative process was essential to best understanding and organizing the data according to the themes that emerged. Ultimately, 37 initial codes were assigned to the chunks of data with a total of nine overall categories or themes. Eight of the nine categories that emerged supported the themes presented in the literature review: transformational leadership, collaboration, mindset/beliefs, instructional leadership, efficacy, trust, goals/results oriented, and teacher leadership. A new theme also emerged and was assigned the category, "Leadership (managerial)." The codes that make up this emergent theme were related to the managerial tasks a site principal engages in, for example ensuring access to a viable curriculum, access and availability of technological devices as well as using technology, oversight and use of funds (budgeting) based on site needs, and providing or making time for teachers to plan. The data related to this theme are significant and reviewed thoroughly throughout the remainder of this chapter. Table 8 presents the final nine categories with their 37 contributing codes. A careful look at these codes reveals the leadership characteristics, practices, and styles that most contribute to the development of collective efficacy by a leader.

Table 8

Teacher's Code and Category Data from Teacher Survey Open Ended Question

Category	Codes
Transformational Leadership	culture and morale, administrative leadership, administrators supporting teachers, principal emotional intelligence
Collaboration	team work, supporting teachers with student behaviors, working with families, classified employee support
Leadership (managerial)	curriculum, technology, budget/funding, time
Mindset/beliefs	parent/home involvement and support, attitudes, socioeconomic status, apathy, motivation, equity
Instructional Leadership	students' academic progress and growth, competing priorities, policies, teaching and assessment, professional learning, special education (knowledge and support)
Efficacy	teacher preparation/knowledge, class sizes, balance
Trust	relationships, communication, listening to teachers, safety, trust, autonomy
Goals/Results Oriented	vision/mission, shared responsibility
Teacher Leadership	teacher leaders

Note. n = 124.

The Principal Self-Efficacy Survey asked, "What are the factors that most prominently impact my ability to lead my school?" Ten principals' responses were collected and analyzed and contained a total of 261 words. The same process used to analyze the teacher open-ended responses was also used for the principal's responses. Through a process of open and axial coding, the 261 words were organized into 11 initial codes and six overall categories or themes. No new categories or themes emerged from the principals' responses. All of the codes supported the existing themes that initially emerged from coding the teacher's responses. The codes revealed the leadership characteristics, practices, and styles that most contribute to the development of collective efficacy by a leader.

 Table 9

 Principal's Code and Category Data from Principal Survey Open Ended Question

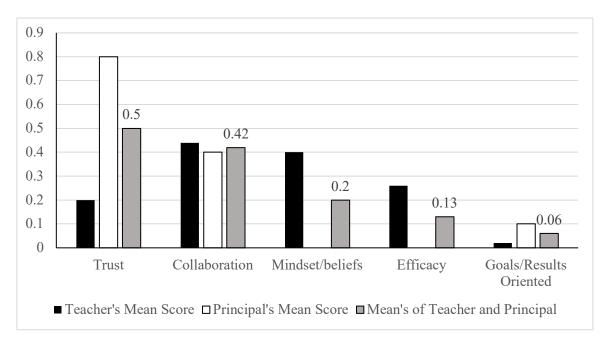
Category	Codes	
Transformational Leadership	vision/mission, shared responsibility, teacher support	
Collaboration	teamwork, parent involvement	
Leadership (managerial)	funding/budget	
Mindset/beliefs	no codes	
Instructional Leadership	students' academic progress and growth	
Efficacy	no codes	
Trust	communication, relationships, autonomy	
Goals/Results Oriented	clear annual goals	
Teacher Leadership	no codes	

Note. n = 8.

With all the open-ended responses analyzed and coded, the data were then separated into two broad categories about leadership, (a) characteristics, practices, and (b) styles, in order to best answer the primary research questions: What leadership characteristics, practices, and styles lead to high collective efficacy in schools? How do principals believe they built high levels of collective efficacy among their staff?" Next, the means were calculated to allow me to compare the data in these two broad leadership categories. First, the characteristics/practices of leadership were graphed. The characteristic/practice that both teachers and principals agree most develops collective efficacy is trust, with a mean of .50. The second characteristic/practice is collaboration, with mean of .42. Mindset and beliefs are third with a mean of .20. Efficacy is fourth with a mean of .13, and being goal driven/results oriented is fifth with a mean of .06. The two most significant characteristics/practices of a leader involve being trustworthy/building trust

and being collaborative/fostering collaboration with the members of their organization if collective efficacy is the goal of the leader.

Figure 8.Leadership Characteristics/Practices of Teachers and Principals Means Comparison



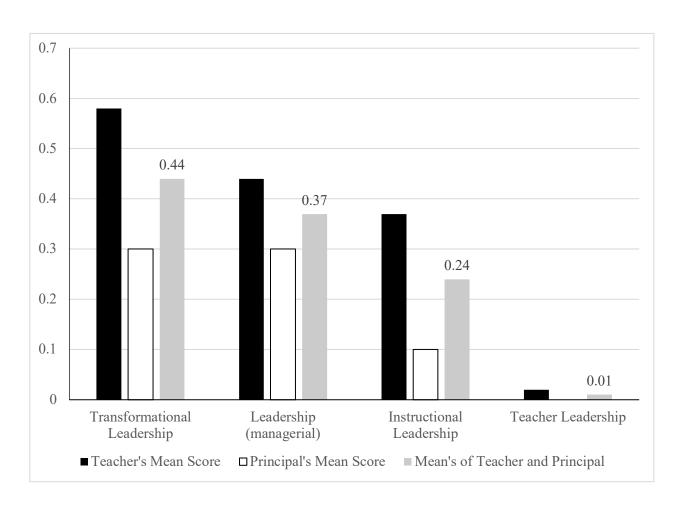
Presented below are the means of the leadership styles that teachers and principals identified via their responses on the surveys. Both groups identified transformational leadership as the primary style of leadership that builds collective efficacy. Managerial leadership followed 7 mean points lower. This style was not identified in the literature review, yet it clearly and prominently emerged in the survey responses as being impactful on developing high levels of collective efficacy. I provided the term *managerial leadership* because the data described this form of leadership as having the responsibilities of a manager. All leaders recognize and acknowledge that there are many managerial tasks they must complete. However, the best leaders understand that they cannot allow the completion of these tasks to overpower their task of leading. They strike a fine balance of leading and managing their organization. Many of the

managerial tasks described in the data include managing budgets to ensure appropriate funding for the most needed resources (materials/resources and technology), ensuring access to a rigorous and viable curriculum, and ensuring time is intentionally set aside to allow teachers to plan, collaborate, and meet the many demands of their job.

The third leadership style that emerged as impacting the collective efficacy of an organization is instructional leadership. Finally, teacher leadership was identified as having a minimal impact on building collective efficacy.

Figure 9

Mean's Comparison of the Leadership Styles of Teachers and Principals



Principal Interview Data

To provide a deeper and more complete understanding of the leadership characteristics, practices, and styles that build high levels of collective efficacy in a school, I present the final findings from the five principal interviews. Five individual interviews were conducted with principals from the 10 schools Teacher Collective Efficacy Survey findings. The interviews were conducted virtually via Google Meets in June 2020. The mean length of the interviews was 24.70 minutes. Each principal gave me permission to record, transcribe, and use the findings of the interviews in this study. According to data obtained from Ebby.co, a total of 19,489 words were collected and analyzed. Principals were asked the questions listed below, which were based on the literature review as well as preliminary findings from the Teacher and Principal survey results.

- 1. If collective-efficacy is "defined as a group's shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477), How would you describe the collective efficacy among your teachers?
- 2. What are the factors that influence the level of collective efficacy among teachers at your school?
- 3. Please identify the leadership characteristics, practices, or styles you believe most contribute to the collective efficacy in your organization?
 - A. Tell me more.
 - B. Please describe that practice or why you think that.
 - C. How do you do this?
- 4. How would you describe your own self-efficacy?

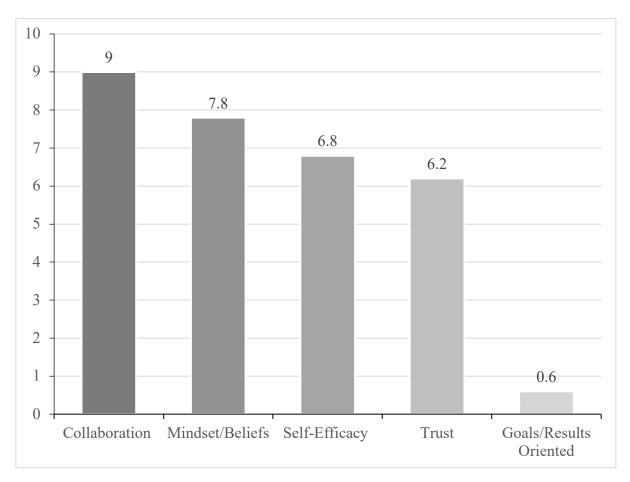
- 5. How does your level of self-efficacy influence your job as principal?
- 6. How does your level of self-efficacy impact your teachers?
- 7. On a scale of 0 to 5, with zero being no self-efficacy and 5 being the most self-efficacy, how would your staff rate you on your self-efficacy as principal?
- 8. Do you believe all students can achieve at high levels regardless of extenuating factors? Why or why not?
- 9. Does your teaching staff believe that all students can achieve at high levels regardless of extenuating factors? Why or why not?
- 10. Do you trust your teachers? Why or why not?
- 11. Describe the degree to which your teachers trust you as their principal.
- 12. Are there any other characteristics, practices, or styles that you believe have contributed to the collective efficacy at your site?

Leadership Characteristics/Practices Findings

First, the interview findings are presented visually and then direct quotes are examined to provide a deeper and more complete understanding of what each of these leadership characteristics, practices, and styles actually are. Figure 10 presents the mean scores of the leadership characteristics and practices the five principals identified to be essential in building high levels of collective efficacy in their schools.

Figure 10

Mean Scores of Leadership Characteristics/ Practices from Principal Interview Data



Principals rated collaboration as the primary characteristic/practice of a leader trying to build high levels of collective efficacy in their organization. This is what they had to say about a leader being collaborative and fostering collaborative processes in their schools.

Collaboration

Two major themes related to collaboration were determined from the interviews: professional learning communities (PLC) related to instructional design and student learning outcomes and collaborative leadership.

Professional Learning Communities

Three of the five principals explained how critical PLCs are on their campus to building the collective efficacy that exists there. They described setting aside consistent and intentional time for teachers to work together, in their grade level teams as well as across grade level teams, in order to build a shared understanding of the standards, align their student learning outcomes, design lessons together, learn from one another, and work collaboratively to best meet students' needs.

There's some super collaborative teams, so when we talk about collective efficacy, I think those teams that are high collective efficacy are very much collaborative. They have their shared beliefs and if they do not, even if their beliefs are different, they're able to come to an agreement and an understanding. But, I think the teams that are not as collaborative that's where we have that that struggle for collective efficacy. I definitely think PLC is huge factor of collective teacher efficacy. Having that time and the opportunity to talk about, you know, the work that needs to be done and what the out expected outcome is so that everybody has that same common shared understanding of the standard, even of how it can be taught, makes the biggest difference. I guess when I add to that, like on the flip side, are the teachers resistant to PLC, that just do not want to collaborate. Then, I feel like that is an additional factor that influences whether or not they're able to build that collective efficacy (D-3 Principal).

This principal described PLC as being the primary factor for building collective efficacy. As teachers work together to build shared understandings and expectations for student learning, they in turn also build their collective efficacy. That belief was also held by another principal.

It's all about PLC. It's all about collective efficacy rather than just a lone wolf doing their own thing. Trying to give them [teachers] time to meet together because that's always a valid concern. The complaint is when will we have the time, so providing the time to collaborate. Collaboration and working together and the team work even across grade levels. Collaboration builds collective efficacy (B-1 Principal).

In addition to building shared beliefs and expectations, this principal explained how important it is as the leader to set time aside and create the conditions that allow for PLC to occur and flourish, not only in grade level teams but across vertical teams throughout the school as well. According to this principal, as these conditions are cultivated and maximized collective efficacy increases. A third principal adds to the data that PLC is a significant contributing factor to collective efficacy.

We have professional learning communities that meet every other Wednesday afternoon. With that being said, the staff have a lot of ownership in terms of what time they meet, even though contractually they should be meeting Wednesday afternoon. Vertical teams meet for 45 minutes once every 5 weeks after school and they really drive the discussions about the goals and where we're headed based on our values as a school. That's what you want. You want everyone to have that buy in and ownership through collaborative processes (C-2 Principal).

In addition to establishing the consistent and intentional conditions for PLC to thrive in an organization, this leader also described how creating these conditions provided teachers with additional buy-in to school initiatives and goals, which ultimately contributed to collective efficacy.

Collaborative Leadership

Principal B-4 detailed collaborative leadership.

So I think the main thing of collective efficacy is that they [teachers] feel involved in the decision-making on the campus, that it's collaborative. I think one factor is I have many staff members who have been here a very long time and they have become like family and so I believe that they have established a family environment here from working together collaboratively over the years. We're a team as far as how I lead here. I think communicating and just being on the same team really developed our collective efficacy.

We really are a family and work collaboratively (B-4 Principal).

In addition to PLC, collaboration extends into decision-making and leadership. This principal described that it has taken time, but ultimately this staff has worked so closely together over an extended amount of time that they now function cohesively as a team, or as a family—as they like to describe themselves, who share in the decision-making at the site, the goals being set, and the overall collective efficacy of the whole organization.

Equity Mindset and Beliefs

The second leadership characteristic/practice identified from the five principal interviews in building high levels of collective efficacy is possessing an equity mindset and belief system. The mean score for this characteristic/practice is 7.8. According to the definition of collective efficacy—a group's belief in their ability to accomplish a given task or goal—is what collective efficacy is all about. People have to first believe they can do it. In education, one of the main goals is to ensure students are making appropriate academic growth. Hattie (2015) and Hoy and Spero (2005) work, although separate, confirm that collective efficacy is a predictor of student achievement, specifically related to ELA and math achievement. When educators collectively

believe that all students can achieve at high levels, they hold each other to those expectations, and the students meet those expectations. It is not enough for just principals or teachers alone to believe it, they must all believe it together and then work towards this goal.

Three main themes emerged according to the beliefs and mindsets around collective efficacy in a school organization. That is, there are principal/leader beliefs, teacher/staff beliefs, and shared or collective beliefs. The schools reporting the greatest collective efficacy have shared or collective beliefs/mindsets in regards to ALL students and their ability to achieve at high levels. It is essential that these beliefs are equity centric, focused on each and every student achieving at high levels, and not just some students or some student groups.

Principal Beliefs

I absolutely think all students can learn regardless of their situation(s), but it's going to be 100% dependent on the teacher. The teacher has to believe it because the minute the teacher believes it, then they're unwilling to let it go any other way. You know, they will fight and fight and fight for that student. The majority of my years teaching if a student left my classroom unable to read I owned that that was on me. Our teaching staff particularly will pinpoint the other factors as the reason [for not reaching a goal] rather than reflecting on their own teaching. You know, because 70% of our kids are on grade level, they will then say these other 30%—it must be because of a, b, c, and d. Like I said, that's the work we're still doing. I do feel like we've made tremendous strides in our beliefs about students, but it's definitely not to the level where I'd like it to be yet. (D-3 Principal).

This principal held strong beliefs about teacher beliefs being the driver in building collective efficacy at their site. Additionally, because this principal holds these beliefs, they also become

the driver of developing these beliefs in their teachers and thus their organization. It is clear that this principal understood this and worked to develop these shared beliefs among their staff. The next two principals also believed that their beliefs shape the learning happening at their school. Principals' beliefs are a key practice in developing the collective efficacy in their site.

I'm a huge believer in high expectations. If you set the bar high, kids will rise to meet those expectations, even if they may need more support (B-1 Principal).

I believe all kids can learn no matter what the extenuating factors are (B-3 Principal).

Teacher Beliefs

These interviews were conducted with principals; therefore, this next section covers the principals' beliefs about their teachers' beliefs about students and their ability to learn at high levels. Principal B-3 acknowledges that the majority of their staff hold positive beliefs about students and their ability to learn at high levels, which contributes to their collective efficacy, but not all staff share these same beliefs yet.

The people that are here care about the kids and they're passionate about what they do. I think that their belief in students contributes to it [collective efficacy] as well. I would say a majority of our teaching staff believe that all children can learn at high levels. There's some that might think that they can't reach certain kids, and they kind of throw their hands up, but I think for the most part the majority of our staff do believe they can and I think the majority of our staff cares 100% about all their students (B-3 Principal).

Principal B-4 felt that their staff believed that all students can achieve at high levels.

Looking back at Figure 6, the Principal Self-Efficacy and Collective Teacher Efficacy at this school were the most closely aligned of all 10 schools. This principal rated their self-efficacy at 67 mean points and the teachers rated the collective efficacy of their site at 65 mean points. It is

clear that the teachers' beliefs are a contributing factor to the collective efficacy they reported and that the principal and teachers had shared perceptions and beliefs about their beliefs and collective efficacy.

I do believe all our teachers here at our site do believe that students can achieve at high levels (B-4 Principal).

Another principal believed that their teaching staff were starting to understand and believe in the power of their beliefs to shape the collective efficacy at their site. In Figure 6 the teachers rated their collective efficacy at 63 mean points.

I do think they (teachers) are starting to see all students are able to grow and learn (C-2 Principal).

Shared or Collective Beliefs

Based on the interview data, one thing is clear—the development of these shared beliefs take both time and intentional work. All five principals spoke to the fact that shaping these beliefs required purposeful work, much of it around Carol Dweck's (2007) research on growth mindset, and that it also takes time to develop these shared beliefs—so that every staff member believe that all students can achieve at high levels and meet the expectations set for them.

We have done a lot of work with growth mindset, as far as training and reading, and then having high expectations of our students. We absolutely believe that all students can achieve at high levels (B-4 Principal).

Principal B-4, who described their staff as a team and family and had the most aligned Principal Self-Efficacy and Collective Teacher Efficacy mean scores, has worked diligently over time to help their staff develop these shared beliefs. Principal B-1 had a similar sentiment and shared that this work has taken time and has required the dismantling of previously held beliefs in order to

create new shared beliefs. It is clear that this dismantling is still a work in progress but is a contributing factor to their overall collective efficacy.

I think that's not to say there haven't been any fixed mindsets in relation to believing, that we haven't had to overcome, but overall, teachers believe all students can learn at high levels. Overall, as a staff, I think we've embraced the, 'None of us is as smart as all of us,' mentality. We believe we can do it [accomplish our goals—which is collective efficacy] together (B-1 Principal).

Self-Efficacy

The third leadership characteristic/practice identified from the five principal interviews in building high levels of collective efficacy is self-efficacy. The mean score for this characteristic was 6.8. Similar to mindset and beliefs, efficacy is also at the core of collective efficacy, even in the term itself. As important as it is to believe that a group can accomplish a given goal, the individual members must also believe in themselves and their abilities to accomplish a given task or goal or the ability to lead a group to do so. Self-efficacy is confidence in oneself to accomplish a given task or goal. As the well-known saying goes, "A team is only as strong as its weakest link." Therefore, the self-efficacy of individuals on a team is crucial to the team's overall success or their collective efficacy. Four important themes were identified in the characteristic/practice of self-efficacy: lack of confidence, confidence over time, confidence and capability, and confidence and humility. The following excerpts help to illustrate the role of efficacy in developing collective efficacy. The first theme identified is lack of efficacy or confidence in oneself or role. This excerpt shows a principal struggling with their own confidence in the role of principal but not feeling like it affects their ability to lead and develop collective efficacy at their site. The results of the Collective Teacher Efficacy and Principal SelfEfficacy Surveys in Figure 6 affirm this opinion. This principal rated their self-efficacy at 45 mean points, which was 22 points lower than the second lowest score of 67. The teachers collectively rated their efficacy as a school at 62, which is 17 mean scale points higher than the principal's self-rated self-efficacy. So, although this principal may individually struggle with confidence and self-doubt, the data reveal it is not impeding their ability to lead or develop the collective efficacy at their site.

Lack of Confidence

So I guess for me this is where I lack confidence in myself. So I find myself often thinking, "Is this the right role for me? Is this the right job for me?" and although I do think it is and I do believe that it is, I definitely question the work that I'm doing and I'm basically like, 'Am I good enough for this job or this role?' I don't think that I show this vulnerability with my teachers, even though I think it in my head. I don't necessarily want people to see this side of me. I am the principal and I should be able to do this work and so I don't often show this side of myself. I always want to come off that I have been intentional and thoughtful about my decisions; not that I haven't been, I have. I think it makes me second-guess things often and wonder if, you know, if I am making the right decisions or leading and I think that is a challenge that I always face (D-3 Principal).

This next excerpt from the interviews also addresses feelings of lack of confidence, but illustrates how it may be common and not necessarily have a direct impact on a leader's ability to develop collective efficacy. This principal rated their own self-efficacy at 81 mean scale points and the teachers rated their collective efficacy at 64 mean points.

It's like while at the same time struggling with imposter syndrome. Sometimes when we talk in our principal group, the principals in our district are awesome—I mean it's a great

group of people that are really talented and really good people, so sometimes it's easy when you see all the great stuff that other people are doing to be like, "Oh my gosh! Well, I'm not doing that," and then overlook the great things that are happening at your own school. So I think I'm not by any stretch there or have it all figured out, but I do have confidence in my ability to lead my school (B-1 Principal).

Confidence over Time

Another efficacy theme that emerged is confidence over time. The interviews revealed that one of the five principals, or 20%, recognized that their confidence has increased with time and experience in their role. It is also important to note that all principals included in this study have been in their roles for at least 3 years, which may be why the majority of the principals indicate more confidence in their roles.

Honestly, I would say at this point, being done with my third year, my self-efficacy has increased. I do think it has increased from my first year to now. My skill set has grown with them [teachers]. So, I think there's definitely more confidence (D-3 Principal).

Confidence and Capability

This next theme, confidence and capability, is where the majority of the data were gathered around efficacy with four of the five principals, or 80%, indicating that they have high self-efficacy and feel very capable in their ability to both lead and develop collective efficacy among their staff.

I'm never one that likes to say, 'Oh, yeah. Well, I do this so well.' I'm sure there's some people that would say that I could do better on this part or do better on that, but I do have complete confidence in my ability to lead (B-3 Principal).

This next principal believed that their level of confidence had a direct impact on their role and ability to perform at high levels in their role. They also believed that without this confidence, or self-efficacy, teachers would not be as likely to view their leader as competent.

The more confident I am the more smoothly things go. Teachers will follow people that they feel are competent and confident. Sometimes you just fake it till you make it. I mean fear does not work in this position. I think knowing that I have a level of confidence is very important to this role. (B-1 Principal).

Another principal also believed that the more confidence a principal has the more the staff has confidence in them and their ability to lead and make important, and sometimes timely, decisions.

Well, I do think confidence matters because when you have to take over the leadership, as far as making a decision, like if there's an emergency or there's, you know, something that has to be done and done quickly they respect the decisions that I have to make at certain times. So there's some give and take there and they have the confidence in me that I'm making the best decision I can at that time. I do have the confidence to make the tough decisions that need to be made. The staff is open and they understand and they honor you when you follow through with those decisions that need to be made. I do feel confident in the decisions that I make to set up situations for our staff to be their best selves (B-4 Principal).

Lastly, this principal added to the data that having self-efficacy in the role of principal is important for displaying credibility and building the confidence of their staff in them as a leader and their decisions.

Staff will describe me as being like calm and collected. We've dealt with a fair amount of crazy situations, whether it be personnel issues, or when the fires happened and having to evacuate, or lockdowns, and during turbulent times they tend to really see me as being confident, calm, and collected during all of those times (C-2 Principal).

Confidence and Humility

The final theme that emerged in self-efficacy is the idea of confidence and humility, or an understanding that although someone may have a high level of confidence, there are always more to learn and ways to grow. As this principal indicated, there is a fine balance between having enough confidence and having too much confidence.

When you think you've got it all done or figured out, that's when you need to quit it. You'll never have it all done. So I mean, I'm confident but not like, 'Oh, yeah!' I think I struggle sometimes with lack of confidence, even though people are telling me, 'You're doing fine, you're doing more than fine, you're doing well.' You want to be confident, but at the same time you want to be real (B-1 Principal).

This next principal was also confident but recognized that there as still so much to learn and so many ways to grow and improve in their leadership abilities and specifically in the role of principal.

I look at situations or problems or things that come my way as, "Okay. This is growth. This is learning. I don't know if I have, you know, the confidence that I am the best principal or I have all the skill sets that every principal needs. I mean, I really don't feel that, you know, like I have that level of confidence because I'm still like growing in all of my areas. I still feel that there's so much, so many areas in this position, that I have to keep growing at (B-4 Principal).

Lastly, this principal identified and described what confidence and humility are—the ability to have enough confidence to lead at high levels while still understanding that even as the leader one is part of the whole team working to accomplish a goal. Ultimately, confidence and humility are at the core of collective efficacy.

It's a fine balance of having enough confidence to be able to do the job and feel confident in the decisions you're making and still have that humility and humbleness to know that you're still just part of this group/team and this train that's trying to all move in the same direction (C-2 Principal).

Trust

The fourth leadership characteristic/practice identified from the five principal interviews is trust. The mean score for this characteristic/practice is 6.2. Interestingly, trust had been rated as the primary characteristic/practice prior to the interview data. The open-ended survey responses from both the Collective Teacher Efficacy and Principal Self-Efficacy Surveys identified trust as the most important factor for building collective efficacy. With the addition of the interview data, trust has moved to the fourth spot but is still an essential factor for leaders desiring to build high levels of collective efficacy in their organizations. The interview data reveal just how important this practice is. Additionally, the comments provide real time ways that leaders build and cultivate trust among their staff. It is interesting to note that it was often mentioned in the interviews that trust takes time to build. One of the conditions of the study was that only principals who had been in their role as principal for 3 or more years were eligible to participate. This condition increased the reliability and validity of the findings. I identified two major themes related to trust (a) factors that build trust and (b) mutual trust.

Factors that Build Trust

One of the first factors identified by principals as necessary for building trust was time.

Three of the five principals directly commented that trust takes time to build and that only after multiple years of working intentionally at this have they been able to develop high levels of trust among their staff.

I think the ones [teachers] where we already have that mutual trust, I trust them and they trust me, has taken time. But, we've been able to develop that (D-3 Principal).

Additionally, this principal stated,

I think a lot of the trust that has been built is because I've been here for 7 years and developed this trust over time (B-1 Principal).

Another principal added,

When I first came here, I would say they didn't trust me at all. I do think right now, 4 years into it [as principal], they trust me (B-4 Principal).

According to two of the five principals, another important factor for building trust and collective efficacy is transparency. So in addition to time, transparency is an essential ingredient in developing trust.

So, I think number one is transparency for building trust and collective teacher efficacy. I be as transparent as I can and I think that helps build the trust as well (B-3 Principal).

Another principal added,

I don't have an agenda. I don't have anything hidden, you know, everything's very transparent here (B-4 Principal).

Another factor that emerged as being essential to building trust was autonomy. Principals indicated that they must extend trust and provide autonomy in order to develop greater levels of

trust in their organization. The ideas of respect and treating others in a professional manner were linked to this idea of autonomy and building trust.

I'm not going to sit there and ask for every little bit, or every little worksheet that they

sent home or everything like that. I'm not going to sit there and check up on them like that because you know, obviously they have a job and if they don't do their job the parents are going to let me know about it. So, I think I never want to be that, you know, the controller over anybody else. I trust them to do their jobs (B-3 Principal).

I trust them [teachers] because they've not given me a reason not to trust them and I see the results. I see the great things that are going on. I do trust them and I give them a lot of freedom and trust them to be their individual selves and tap into their own strengths (B-1 Principal).

I totally trust my teachers. I feel I treat them like professionals, and I expect them to be professional, so I don't like to micromanage. That autonomy builds our trust and collective efficacy. I think I respect them as a professional and treat them like a professional and so in return they do the same with themselves and to me. (B-4 Principal).

The factors that principals identified as building trust are time, transparency, and autonomy. These factors are all necessary to build high levels of trust, which in turn build high levels of collective efficacy.

Mutual Trust

The second major theme associated with building trust was mutual or reciprocal trust.

Principals identified and associated mutual trust as a specific condition that must be present to build high levels of collective efficacy.

When you can collectively have a safe environment, built on trust, then that definitely contributes to the collective efficacy (D-3 Principal).

Here is another great example of mutual trust as an enabling condition for building collective efficacy.

Our leadership team, and everybody, kind of has to rally around our shared vision and believe in that and trust one another. I think all those things are an important part of our school because we have to have, you know, they have to trust that the leader knows what the vision is. The fact is that they have to choose, you know, if they're following it or they're not going to follow it. They're going to have to believe in what you're believing in and trust you and trust that you're doing it for the right reasons. You know integrity and things like that really matter and build the trust and collective efficacy. I think again that trust goes both ways. So if they trust me, then I trust them, and I think by building that trust with one another you build collective efficacy (B-3 Principal).

As these next two principals indicated, sometimes trust is extended automatically or naturally until there is a reason not to. However, all principals indicated in their interviews that trust must be present in order to build high levels of collective efficacy. Additionally, the surveys indicated that it is the primary leadership characteristic/practice for developing high levels of collective efficacy.

They haven't given me a reason not to trust them and I don't think I've given them a reason not to trust me (B-4 Principal).

I feel like our teachers trust me and I trust them. This builds our collective efficacy (C-2 Principal).

Clearly, trust is essential to building high levels of collective efficacy in an organization, but it takes time, transparency, autonomy, and must be mutual or reciprocal between leadership and staff members. "When we tell people to do their jobs, we get workers. When we trust people to get the job done, we get leaders" (Sinek, 2016, p. 103).

Goal Driven/Results Oriented

The fifth leadership characteristic/practice identified from the five principal interviews was being goal driven and results oriented. The mean score for this leadership characteristic/practice was 0.60, which is significantly less than all the other leadership characteristics and practices shared thus far. Bandura (2000) asserted that leaders who collectively set and lead their team to achieve goals is a main tenet of collective efficacy. The findings of this research do not diminish that aspect of collective efficacy. It may be that the principals interviewed did not identify that as a major contributing factor to developing high levels of collective efficacy at their sites or failed to fully understand the significance of this leadership practice and therefore their school's collective efficacy may have room to be positively impacted by better understanding and implementing this leadership practice. Although only one principal identified this practice in their interview as being a major factor in developing the collective efficacy at their site, it is interesting to note that their school's Teacher Collective Efficacy and Principal Self-Efficacy mean results were closely aligned and their student achievement data were above the average of the nine other schools, which is an indicator that this leadership practice does have a positive impact on collective efficacy. This principal noted,

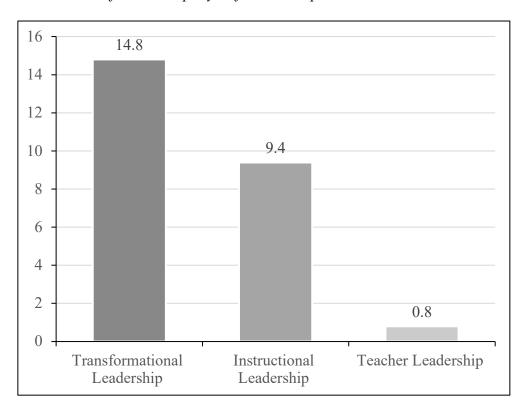
Our staff really work together towards our goals and this creates high levels of collective efficacy as we achieve them together (C-2 Principal).

Leadership Styles Findings

Figure 11 presents the mean scores of the leadership styles the five principals identified in their interviews to be most impactful in building high levels of collective efficacy in their schools. These leadership styles embody many of the characteristics and practices described thus far and are helpful in describing their impact on building collective efficacy. It is essential to identify and describe these separately from the leadership practices/characteristics to provide the most clear direction to leaders on how best to develop collective efficacy in their organizations.

Figure 11

Mean Scores of Leadership Styles from Principal Interview Data



Transformational Leadership

The data indicate that the primary leadership style that has the greatest impact on building collective efficacy is transformational leadership. Northouse (2016) defined transformational leadership as "a process that changes and transforms people. It is concerned with emotions,

values, ethics, standards, and long-term goals. It includes assessing followers' motives, satisfying their needs, and treating them as full human beings" (p. 161). Northouse explained that this style of leadership "involves an exceptional form of influence that moves followers to accomplish more than what is usually expected of them. It is a process that often incorporates charismatic and visionary leadership" (p. 161). This definition alone seems to capture many of the elements of collective efficacy that the data have revealed thus far. Furthermore, the data presented in this study fully support that this style of leadership has the greatest impact on developing high levels of collective efficacy in an organization with a mean score of 14.8. A closer look at the interview data reveals how this is done and why it is critical to developing collective efficacy. I found five major themes related to transformational leadership in the interview data that correlate to the findings about transformational leadership described in Chapter 2. These themes are (a) visionary leadership (b) school culture (c) listen, support, and appreciate (d) inspire, encourage, and motivate (e) build capacity and transform.

Two principals associated an aspect of visionary leadership, a strand of transformational leadership, with building collective efficacy.

Visionary Leadership

So, I would say we, as a group, have a shared vision or shared belief. One of the things that we do every year is we have a theme or a motto to start the school year and this builds our collective efficacy. It's great to get everybody behind that one mission, that one vision, and then everybody is going in the same direction. I always have something that we're looking forward to (B-3 Principal).

I think it [collective efficacy] goes back to having a shared vision (C-2 Principal).

School Culture

Three principals also associated the culture of the school, another strand of transformational leadership, as being fundamentally connected to the collective efficacy of the school.

I think honestly the culture of the school makes a big difference on collective efficacy because if you have a positive school culture, teachers are more able and more likely to have those ongoing conversations that unify them in their work (D-3 Principal).

Well, we have good culture here and that's essential for collective efficacy. It's important to provide opportunities for the staff to celebrate each other and that also builds collective efficacy (B-1 Principal).

I feed them [teachers] a lot because I feel like when you break bread you bring people together. It's [collective efficacy] that culture of building strong relationships where everyone is feeling loved, valued, and appreciated. C-2

Listen, Support and Appreciate

Three principals linked the ability of the leader to listen, support, and appreciate staff as a significant contributing factor of building collective efficacy. These leadership characteristics and practices are another component of transformational leadership.

I think it really comes down to relationships and that each person on the campus feels loved, valued, and appreciated. I'm there to support their work and I do believe our staff knows that they can come in and grumble if they need to and I will hear them (C-2 Principal).

So, you know, I think one of the biggest things is they [teachers] have to be heard and listened to. They have to buy into the vision/mission of the group. I believe the factors

that contribute the most to collective efficacy is again, the transparency, communication, and understanding. They know where we're going and why we're doing what we're doing. A lot of times that's the biggest thing. You also have to be there and be visible. Being visible let's teachers know that you're there to listen to them and to support them. Supporting each other, I think that's huge (B-3 Principal).

We talk and communicate a lot. That's huge for collective efficacy. I think as a leader I'm willing to listen to their ideas, with you know, an open mind and because I have done that I believe they have in turn done that for me which builds our collective efficacy. I don't see myself as a leader. I'm here to support them [teachers]. I'm here to facilitate and make sure things are running so that they can do their job. I think listening is critical for collective efficacy. They know that I wouldn't ask them to do a job that I wouldn't do myself. I look out for them also so that they feel supported (B-4 Principal).

Inspire, Encourage and Motivate

Two of the principals recognized during their interviews that inspiring, encouraging, and motivating teachers also helps to build collective efficacy. These leadership characteristics and practices are also associated with transformational leadership.

I think obviously they [teachers] work best on positive motivation and positive praise.

This is also important for developing collective efficacy (B-3 Principal).

I think encouraging matters. Just continue to encourage. I really try to be a big encourager (B-1 Principal).

Build Capacity and Transform

The final theme identified in transformational leadership was building capacity in individuals in order to transform the organization. Three principals identified this theme as a major contributor to building collective efficacy.

I think it's [collective efficacy] challenging status quo. I like to push them [teachers] beyond. You know, like one of the phrases I despise the most in the world of education is, "That's what we've always done." So, I like to push back on that, "like what else can we do because what we've always done doesn't necessarily defined collective efficacy." I use my leadership to influence teachers to grow and change. It's important to know your teachers and your staff well enough to know when you can push a little harder.

Leadership is not necessarily about being a leader that people love. I think there's a way to lead tactfully. Also, I feel like part of our job as leaders is to inspire change and so you have to be able to be brave enough to do that (D-3 Principal).

I see myself as the coach. I'm kind of setting them [teachers] up for success. I'm going to help them, correct them for certain things that they do, but then at the same time, I'm going to celebrate and be excited when they do the right things and are excited about getting that base hit or whatever. I think that's my biggest thing that influences my job as a principal and our collective efficacy. We're continuing to strive to be a little bit more and do a little bit better every year, trying to grow and learn (B-3 Principal).

I'm constantly encouraging and pushing folks to grow, like the multiplier effect. To grow into that shoe size, you know, half a size bigger, and then okay, what's that next step?

We're not stagnant as a school and I have a knack of challenging people in a loving way.

We're you know, we're moving the pack together (C-2 Principal).

Instructional Leadership

Analysis of the interview data identified the leadership style that has the second greatest impact on building collective efficacy is instructional leadership. This style of leadership has the following required components: a clearly defined mission, a leader that closely monitors the teaching and learning occurring in classrooms against the school's mission and goals, a leader that promotes a positive learning environment by communicating goals and establishing clear expectations, a leader that improves student learning through observation and feedback to the teacher, and a leader that actively participates in the planning, designing, administering, and analysis of assessments in order to improve learning (Hallinger, 2005). Two major themes identified in the data related to instructional leadership: professional learning and student achievement.

Professional Learning

In regard to professional learning, an instructional leader values ongoing learning and recognizes that it is an essential element to continued growth and overall achievement, which builds the collective efficacy of the organization and vice versa.

I think training is very important to collective efficacy. A few times the last couple of years we've devoted a whole staff meeting, or a half a day of a district day, of just sharing time where I asked every teacher to come to the table with something they want to share that improves student achievement. PD that is developed by the teachers, it is real, it is relevant, because it is their own thing (B-1 Principal).

Then they [teachers] also were presenting at professional learning meetings with each other. We've seen a lot of growth with our academics. On the last dashboard we improved significantly and so I think that would just be another data point to prove that

the work that's going on, on our campus, is great and building that collective efficacy. As the leader I am responsible for leading this work through clear expectations, planning, monitoring, and feedback (C-2 Principal).

Student Achievement

The second major theme identified in instructional leadership was student achievement.

Leaders who desire to build high levels of collective efficacy realize that a focus on student learning and achievement is critical a driver of this work.

You know, collective efficacy is getting that level of learning to the level that it should be for our students (D-3 Principal).

And so that's kind of what we drive on to build our collective efficacy, is our own kids growth, and how they're doing in meeting their academic goals (B-3 Principal).

Looking at data and universal access plans and things like that. Not letting kids slip through the cracks. If they're flatlining, if they're not making progress, we notice and we attempt to put things in place to remedy that. That's collective efficacy. (B-1 Principal).

Teacher Leadership

The final leadership style that emerged in both the open-ended survey responses and interview data are the idea of teacher leadership. The mean score for this leadership style was significantly lower than the first two leadership styles at 0.80. Nevertheless, it did emerge as a leadership style that contributes to the collective efficacy of an organization. Based on the data, this style can be described as teachers assuming various leadership roles in a school and contribute significantly in leading site initiatives while also building the capacity of their colleagues and meeting the goals set by the group.

I think one of the things that we have are great [teacher] leaders. 'You guys got it. You're good. Good take it. You guys run with it. You know what you're doing! Fantastic.'

Again, if I put all the teacher leaders in the right place, I can kind of just sit back and be the coach and help and support where I'm needed and celebrate the kids. I think a lot of times as I don't try to micromanage them [teachers], they step up. I think a lot of times as a leader the only way we can be leaders or managers, is by allowing others to lead. When you're leading you're trying to get other people to also be leaders and I think that's the biggest thing for building collective efficacy. I'm just teaching other people how to be a leader and what to do as leaders to be able to make decisions on their own. You've kind of planted that seed for them to go ahead and move their leadership along as well (B-3 Principal).

Summary

In conclusion, the quantitative and qualitative data worked together to clearly identify the key leadership characteristics, practices, and styles that most contribute to developing high levels of collective efficacy in a school setting. Understanding these leadership characteristics, practices, and styles is paramount for increasing student achievement. Hattie (2015) and Hoy and Spero (2005) demonstrated via their extensive research that collective efficacy is in fact a predictive measure of student achievement in ELA and math, with low collective efficacy equaling lower student achievement and high collective efficacy equaling higher student achievement. Figures 12 and 13 combine the results from both surveys and the interviews to illustrate the best leadership characteristics, practices, and styles that most develop collective efficacy according to all the participants of this research study. Figure 12 shows the results of the leadership characteristics/practices that have the greatest impact on building collective efficacy.



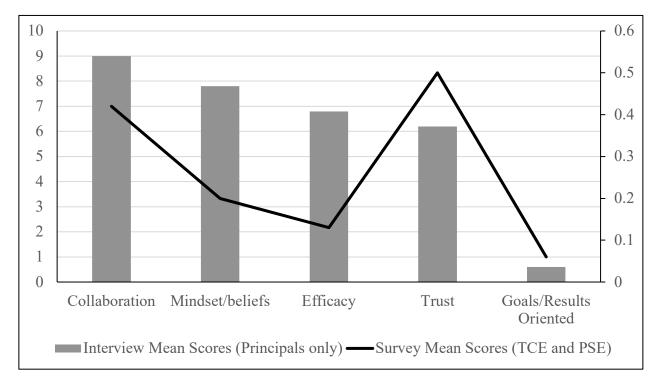


Figure 12 is fascinating and revealing. It highlights the characteristic/practice of trust.

Based on all the quantitative and qualitative data, it is clear that trust is a necessary factor to building high levels of collective efficacy, and it works hand in hand with collaboration to do so.

Leaders must build trust first. It is the glue that holds all the other work together.

In Figure 13, presents the mean scores of the leadership styles that have the greatest impact on building collective efficacy in a school.



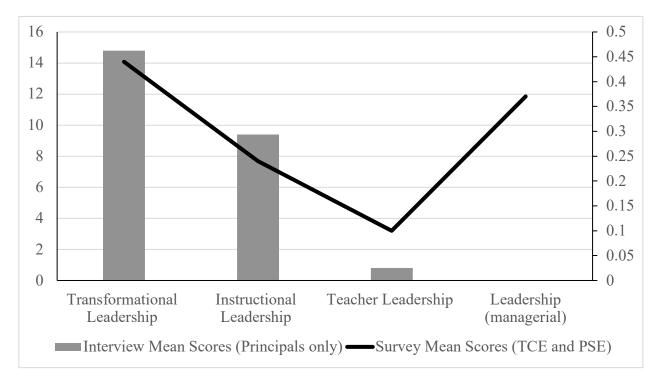
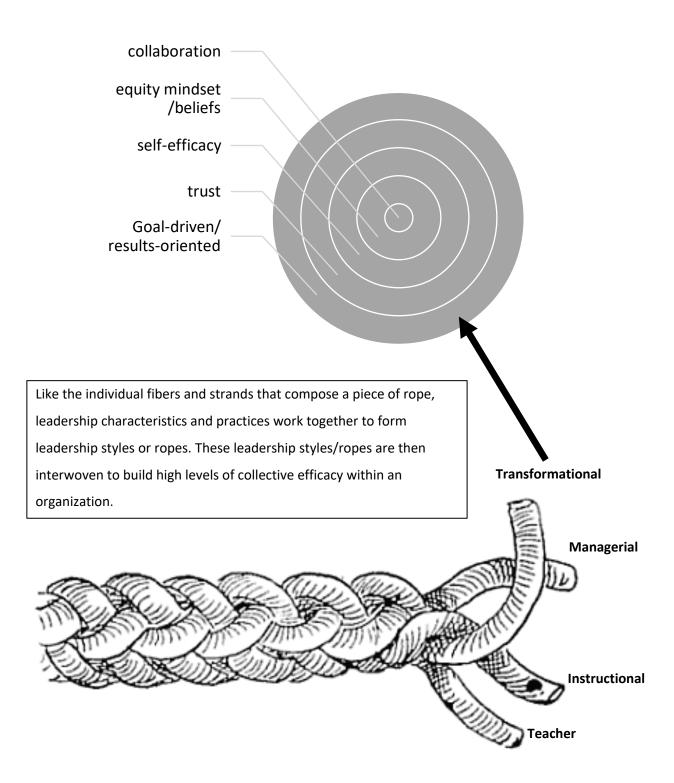


Figure 13 clearly identifies the two leadership styles—transformational and managerial—that most impact the development of collective efficacy in an organization. Leaders must possess high levels of both in order to most fully develop the collective efficacy in their organization.

Although the art of leadership is very complex and nuanced, these results are clear and provide a detailed roadmap for administrators, future administrators, administrator preparation programs, and leaders in general who want to build high levels of collective efficacy in their organization. The individual leadership characteristics/practices are like the individual strands of a rope. These pieces of rope are then braided or woven together to form leadership styles that intertwine with one another in order to provide strong leadership, which results in high levels of collective efficacy and student achievement. Figure 14 captures these overall findings.

Figure 14Leadership That Most Develops Collective Efficacy in a School



CHAPTER 5: DISCUSSION

Summary of the Study

The purpose of this mixed-methods phenomenological study was to explore, identify, and describe the leadership practices employed by public school principals that lead to high levels of collective efficacy in their organizations, which in turn result in significant student achievement outcomes. The primary research question that guided this study was

1. What leadership characteristic, practices, and styles lead to high collective efficacy in schools? How do principals believe they built high levels of collective efficacy among their staff? Through a combination of surveys and interviews conducted with both teachers and principals, this research question was able to be robustly answered. The leadership characteristics and practices principals believe most build collective efficacy are collaboration, trust, self-efficacy, equity mindset and beliefs, and being goal driven and results oriented. The leadership styles they believe most build collective efficacy are transformational, managerial, instructional, and teacher leadership. All of these characteristic, practices, and styles were identified in the literature review with the exception of managerial leadership. It became clear through the data that having a competent leader who is able to manage the various responsibilities and tasks of their position is very important to building high levels of collective efficacy in an organization.

Additional subquestions that were also explored and answered are

1. What role does a principal's self-efficacy play in developing high levels of collective efficacy among their staff? The quantitative data did not reveal any significant findings between Principal Self-Efficacy and Collective Teacher Efficacy. However, because only 10 principals participated in the study, the sample size may have been too small to produce any

significant findings. The qualitative data however did identify that a principal's self-efficacy, or confidence in themself and in their position, is a key contributor to developing high levels of collective efficacy. One of the conditions of this study is that only principals with 3 or more years of experience were eligible to participate. The principals minimally meeting this condition reported less self-efficacy than those with more time in their positions. A body of current research and literature also validate that self-efficacy is essential in building collective efficacy, as it takes a minimal level of confidence in oneself and abilities to inspire and build that in others. As Simon Sinek (2016) noted, "A good leader doesn't only inspire us to have confidence in what they can do. A great leader inspires us to have confidence in what we can do" (p. 68). It would be interesting to research the effects of too much self-efficacy on the development of collective efficacy as some of the data indicated that some of the principals had much more self-efficacy than the collective efficacy being reported by their staff.

2. What role does an equity mindset and beliefs play in developing high levels of collective efficacy? As the literature identified, mindset and beliefs are a key component of collective efficacy. The data gathered from this study supports these same tenets. At the heart of collective efficacy is first the belief that the group, or the collective, can accomplish a given task or goal by working together to do it. In education, equity is a critical added component as the belief and mindset must also be for all students to achieve at high levels and not just some students or some student groups. According to the Collective Teacher Efficacy Survey, the schools reporting less collective efficacy also had principals report that this is an area, equity mindset and beliefs, that is still being developed among the staff. The principals

- who report that all of their staff have these beliefs/mindset also reported a higher collective efficacy mean score (see Figure 6 and principal interview data).
- 3. Do leaders that possess multiple traits of transformational and instructional leadership cultivate higher levels of collective efficacy in their organizations? The data were very clear that both transformational and instructional leadership styles do contribute to the development of collective efficacy in an organization, with transformational leadership being the most impactful having the highest mean score on both the survey and interview data (see Figure 13). "The true value of a leader is not measured by the work they do. The true value of a leader is measured by the work they inspire others to do" (Sinek, 2016, p. 100). Interestingly, managerial leadership had not been identified during the literature review as being a style that may also build collective efficacy, but the survey responses from both teachers and principals absolutely identified this as a leadership style that contributes to building collective efficacy. Based on the responses, it became evident that a leader who is able to handle the managerial aspects of leadership does have a positive impact on building collective efficacy. Participants identified these managerial aspects to include allocating funds and meeting site needs through effective budgeting, ensuring access to a current, robust and viable curriculum, access to appropriate technologies, access to materials and supplies, allocating time for teachers to collaborate and design instruction, and using time in effective ways. Teachers need an administrator who sees the needs, understands the demands, and removes obstacles for teachers, which then allows them to have the time, materials, and resources to focus on the real work of educating students, which ultimately builds the collective efficacy in the organization. Although it's not talked about much, the managerial aspect of leadership is real, must be done, and those

- leaders who manage this at high levels absolutely have a positive impact on the collective efficacy of their organization.
- 4. What role does teacher leadership and high functioning collaborative teams have on collective efficacy? How do principals develop these teacher leaders and teams in their organization? Collaboration was found to be among the primary practices in developing collective efficacy in both the survey and the interview data. The literature also describes intentional and consistent collaboration as an enabling condition for building high levels of collective efficacy (Donohoo, 2016). Principals described creating the time and space for grade level and vertical teams to work together intentionally to design, measure, and reflect on learning experiences for all students. Principals also described building capacity in their teachers and empowering them to engage in and lead this work. Essential to being able to do this is the presence of trust, which is another practice this study researched and is reported on in Question 7 below.
- 5. Does a clear focus on goals and results contribute to increasing collective teacher efficacy?

 If so, how does the principal establish and communicate these goals and results? The

 literature identifies that the establishment of goals and measuring those goals is a key and
 necessary component of collective efficacy (Bandura, 2000). The data also confirmed and
 revealed this, but at a significantly lower mean score than any of the other leadership
 characteristics, practices, and styles. As mentioned in Chapter 4, I identified that this may be
 a leadership characteristic/practice that is not fully understood as being a key component of
 collective efficacy and therefore the schools/districts in this study may be able to increase
 their collective efficacy by implementing a goal driven/results oriented culture. One
 principal, C-3, did clearly identify in their interview that being goal driven and results

- oriented has greatly fueled the collective efficacy at their site. It was also mentioned by other principals, indirectly in their interviews, that creating shared visions and missions and working together collectively to fulfill these visions and missions build collective efficacy.
- 6. What role does trust play in developing high collective efficacy? The literature identified trust as a critical and necessary factor in developing collective efficacy. This study identifies it as the glue that binds all these leadership characteristics, practices, and styles together in order to build high levels of collective efficacy. All of the data support the conclusion that trust is an essential and necessary leadership characteristic/practice in developing collective efficacy. Additionally, the data reveal that it takes time to develop trust and that trust is best cultivated when transparency, autonomy, and mutuality/reciprocity are all present. The findings of this research indicate that both trust and collaboration are absolutely necessary leadership characteristics and practices in developing high levels of collective efficacy. "A team is not a group of people who work together. A team is a group of people who trust each other" (Sinek, 2016, p. 66). Ultimately, trust is central to collective efficacy.

Discussion of the Findings

Through teacher and principal surveys and then interviews with principals, all research questions were answered. The leadership characteristics and practices that most build collective efficacy in an organization are collaboration and trust, then, possession of an equity mindset/belief system, self-efficacy, and being goal driven and results oriented. Based on the overall findings of the characteristics/practices provided in Chapter 4, leaders should focus their time and energy on developing, to high levels, collaboration and trust, before drilling down to the other leadership characteristics/practices, especially because the other characteristics/practices are embedded in collective efficacy.

Furthermore, the leadership styles that most impact the development of collective efficacy in an organization are (a) transformational leadership, (b) managerial leadership, (c) instructional leadership, and (d) teacher leadership. Based on the means of these styles presented in Chapter 4, I recommend leaders focus their time and energy on being a transformational leader first and foremost, which requires high levels of I emotional intelligence. Simultaneously, the leader must be counted on to handle the various managerial aspects of the job so that these do not impede on or negatively impact teachers. Once a leader is proficient in both of these leadership styles, they may devote more of their time to developing themselves as an instructional leader. A leader cannot coach what they do not know. Eventually, it will be important for principals to develop other teacher leaders to sustain the collective efficacy that has been built, especially because the average tenure of a principal is approximately 5 years.

Implications for Practice

Leadership is complex and nuanced. There are many characteristics, practices and ultimately styles of leadership that have a positive influence on an organization. However, to best develop and foster collective efficacy in an organization, the findings of this study reveal there are a few key leadership characteristics, practices, and styles that must be developed in order to build high levels of collective efficacy. These leadership characteristics, practices, and styles have been thoroughly presented and reviewed in Chapters 4 and 5. The characteristics and practices are collaboration, trust, self-efficacy, equity mindset and beliefs, and being goal driven and results oriented. The leadership styles are transformational, managerial, instructional, and teacher-led. Understanding and teaching these leadership characteristics, practices, and styles in administrator preparation programs would better prepare leaders for the work of building

collective efficacy in their organizations when they assume these positions. It would provide a clear focus on best practices.

Current leaders can begin a study and practice cycle of implementing these leadership characteristics, practices, and styles. Similar to the PLC cycle, the leader can implement, reflect, and refine their leadership characteristics, practices, and styles related to building high levels of collective efficacy.

Furthermore, teachers 20–29 also showed a significant result on the collective efficacy of the organization, so another recommendation would be, when provided the opportunity and when they are the best candidate for the position, to hire teachers in this age range to help build the collective efficacy in the organization.

Finally, I recommend that those coaching and supervising principals understand the enabling conditions for building collective efficacy so that they set realistic expectations for the principal, in terms of their personal achievement as well as the school's achievement, as well as know how to coach the principal in building high levels of collective efficacy. It is important to go slow, and focus on the right things in the beginning, in order to go fast later and create sustainable change.

Limitations

This study had limitations. First, the sample size of the Principal Self-Efficacy Survey results was very small. In total, 10 principals participated in this survey during Phase 2 of the data collection process. The study was designed to start large with many schools participating in the Teacher Collective Efficacy Survey, which it did—19 schools from four districts participated yielding 185 responses to the Teacher survey. Then based on the collective efficacy results collected and analyzed, I funneled to a smaller group of principals identified to be leaders of low,

medium, and high collective efficacy schools. The results identified these 10 leaders. However, this small sample size yielded inconsistent and varying results, in particular with the quantitative statistical reports and data.

In addition, the data collection process was greatly hindered and delayed by the global COVID-19 pandemic. In-person meetings and interviews were scheduled for the week of March 15, 2020, but due to extensive county closures beginning on March 13, 2020, this timeline was pushed back by 6 weeks. Additionally, I used remote technologies such as email, phone calls, Google forms, and virtual meetings/interviews to gather the data instead of the planned in person interactions. Thankfully, technology was an available tool during this time.

Delimitations

I chose to conduct this research in four districts, spanning two counties in southern

California based on my geographical proximity to these four districts in anticipation of

conducting in person meetings and interviews. Ironically, due to COVID-19, all interactions took

place via the use of technology and digital platforms. However, these four districts did offer a

great range of diversity and access to a large number of teachers and administrators.

Additionally, I had points of contact in each of these districts making it easier to obtain the

proper permissions to conduct this research in these districts.

Recommendations for Further Research

This study used convenience sampling to survey teachers and principals about perceived self- and collective efficacy. I recommend a much larger sample size, spanning many states, if possible. Additionally, I recommend adding an additional open-ended question to the Teacher Collective Efficacy Survey, which already asks one open-ended question, "What are the factors that most prominently impact my school colleagues in their role as teachers?" This question

provided compelling data about the factors contributing to the collective efficacy at their site. However, this proposed additional question should be asked in order to yield further data on what teachers perceive are the leadership practices that most contribute to the development of collective teacher efficacy at their school site. "What leadership practices do you believe most contribute to developing high levels of collective efficacy at your site? Please describe these practices and explain why you believe they most impact the development of collective efficacy in your organization."

In addition, I also recommend interviewing a sampling of teachers from schools self-reporting high collective efficacy and asking the teachers the same questions asked of the principals during the interviews. The overall interview data would then contain findings from both teachers and principals, just as the survey data did, ensuring maximum voice as well as reliability and validity about which leadership characteristics, practices, and styles most build collective efficacy.

Given the current global pandemic, I also recommend further exploration and research on how to build or maintain high levels of collective efficacy during a crisis. It would be interesting to see if the leadership characteristics, practices, and styles for building collective efficacy remain the same or change due to the context of the situation/environment.

Conclusions

In conclusion, the purpose of this phenomenological study was to identify and describe the leadership characteristic, practices, and styles that lead to the development of high levels of collective efficacy in order to achieve significant student achievement outcomes. The results clearly defined and described the leadership characteristics, practices, and styles that do in fact build high levels of collective efficacy and thus result in high levels of student achievement. The

findings also validated that the principal is the linchpin of this incredibly important work. Who the leader is, their character, and how they lead, their practices and styles, are major drivers to the collective efficacy that exists in an organization. "The greatest influence on student progression in learning is having highly expert, inspired and passionate teachers and school leaders working together to maximize the effect of their teaching on all students in their care" (p. 2). Principals are the linchpin of a school, which is a very complex educational machine with many moving pieces and parts, and have the ability, as such, to hold together the wheels of this complex machine, the teachers, in order to drive the collective work and efficacy that is happening in their organization. Without the linchpin, the machine fails to work properly or move forward. With the linchpin securely in place, there are no limits to the distance this machine can travel given the proper maintenance and care along the way. The Merriam Webster English Language Learner's Dictionary ("Linchpin," 2019) defined a linchpin person as, "a person or thing that holds something together: the most important part of a complex situation or system." The principal is the linchpin person in a school. This is not to say that teachers are not essential and fulfill a critical role in a school, they most definitely are as they are the wheels of this complex machine, but the principal has the ability and responsibility to use their leadership position to get all staff members working and moving together in the same direction. As the African proverb says, "To go fast, go alone. To go far, go together." Simon Sinek also offered wise counsel on this topic, he states, "The ability of a group of people to do remarkable things hinges on how well those people can pull together as a team" (2016, p. 55). He further explained how this is done, "Under poor leaders we feel like we work for the company. With good leaders we feel like we work for each other" (Sinek, 2016, p. 14). The principal who understands their role and responsibility as a linchpin ensures that people, or pieces of this complex educational

machine, are working for and on behalf of each other and those they serve. This is collective efficacy—a team that trusts each other, believes in their collective abilities and strengths, and then works together to accomplish a given task or goal.

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