

EXPLORATION AND COMPARISON OF EFFICACY AND MINDSET
PERCEPTIONS HELD BY 9-12 SCHOOL LEADERS AND TEACHERS

By

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A Dissertation Submitted to the Faculty of
The College of Education
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

Florida Atlantic University

Boca Raton, Florida

December 2022

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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Valerie Bryan, Department of Educational Leadership and Research Methodology, and has been approved by all members of the supervisory committee. It was submitted to the faculty of the College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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ACKNOWLEDGEMENTS

The author would like to thank Florida Atlantic University faculty and staff, particularly her committee members, for all of their guidance and support. Thank you for patience, encouragement, and feedback throughout the completion of this manuscript.

Additional thanks to my parents, Katie's, and three M.B.'s. You always cheered for me and pushed me to be better. Words cannot describe how thankful I am for your support over the years.

In a 1947 edition of *Reader's Digest*, Henry Ford expressed the power of mindset by saying, "Whether you believe you can do a thing or not, you are right." These words have never felt truer- always believe in your potential.

ABSTRACT

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Title: Exploration and Comparison of Perceptions of Leader Efficacy and Teacher Mindset Held by 9-12 School Leaders and Teachers

Institution: Florida Atlantic University

Dissertation Advisor: Dr. Valerie C. Bryan

Degree: Doctor of Philosophy

Year: 2022

This quantitative study sought to determine the efficacy and mindset perceptions of current school leaders and teachers within public high schools. This study highlighted a discrepancy in efficacy and mindset among educators for each other. Firstly, school leaders feel they make a difference, but teachers do not hold the same level of belief in leadership's ability to make a difference. School leader perceptions of self-efficacy have increased significantly since 2008. Lastly, teachers' perceptions of school leader efficacy and teacher mindset correlated, meaning a significant portion of variance in teacher perceptions of school leadership efficacy can be predicted by the mindset held by the teacher toward capacity to grow in ability and talent. However, school leaders' perceptions of self-efficacy and teacher mindset did not correlate, suggesting school leader self-efficacy beliefs do not predict their beliefs in teacher growth potential. Over the years, the terms "efficacy" and "mindset" have been thoroughly researched; however,

never in a context surrounding school leaders' and teachers' perceptions of each other's capabilities. Therefore, this study sought to explore and compare school leaders' and teachers' perceptions of efficacy and mindset for each other to gain insight into the workplace environment within educational 9-12 systems.

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CHAPTER 1: INTRODUCTION

Throughout the researcher's journey to transform from a K-12 educator into a school leader, the level of understanding of teaching had to evolve. As a future school leader, the researcher completed core classes in leadership to develop the skills to manage, motivate, and teach adults rather than focus on a child's educational growth. The journey included learning about the difference between "andragogy" and "pedagogy" as this new chapter within teaching began. Malcolm Knowles defined andragogy as meeting the needs of self-directed adult learners, i.e., learners that are full of experiences, ready to learn, internally motivated, and need to know *why* they are learning (Merriam et al., 2007). The researcher's *why* became visible through the various theories and leadership styles learned to help understand how to manage an organization, employees, and culture that fosters personal and professional growth.

Though the researcher was eager to show off newly acquired theoretical leadership knowledge, the actual wait for the opportunity began. The researcher began hoping for a chance to create and maintain an effective and efficient educational organization. As the years of learning and waiting for opportunity passed, the researcher continued teaching within a K-12 setting and witnessed how little some educators believed in each other's capabilities and growth potential. Through these lived experiences, the researcher became more curious about educators' beliefs of efficacy and mindset.

Bandura (1986) explained *self-efficacy* as thinking one can complete a behavior or task required to produce desired outcomes. In general, educators should believe they can make a difference in their students' lives by presenting opportunities for social, emotional, physical, and academic growth. Tschannen- Moran et al. (1998) defined *teacher efficacy* as "... the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (p. 233). If an educator believes that he or she can make a difference in student learning, the educator is classified to hold a high self-efficacy level (Tschannen-Moran & Woolfolk Hoy, 2001).

Dweck and Leggett (1988) initiated research on self-theories, leading to the development of *fixed and growth mindsets*. Dweck's mindset theory accounts for the presence or absence of individual effort and resilience during change or challenges. Individuals can either have a *growth mindset*, where intelligence, ability, and talent are transformable within individuals, or a *fixed mindset*, believing intelligence, ability, and talent are fixed traits. Mindsets can vary from topic to topic within a person, and individuals can change their mindsets (Dweck, 2013). Self-efficacy and mindset are notions within individuals that can impact their behavior, actions, and communication amongst others and themselves.

Gero (2013) described the *teacher mindset* as a construct of several factors, including teacher efficacy. The teacher mindset is the mindset held by teachers that explains their perception of teachers' ability to grow instructional practices, regardless of their expertise (Gero, 2013). The researcher believes that educators' perceptions of efficacy and mindset have the potential to create atmospheres that encourage change and

growth for teachers. However, before the atmospheric shift can be addressed, research needs to be conducted to gauge the current educators' perceptions of efficacy and mindset in each other.

Many researchers have examined the significance of mindsets (Achor, 2010; Auten, 2014; Duckworth, 2016; Dweck et al., 2011; Fisher, 2018; Gero, 2013; Heslin & Keating, 2013, 2017; Jegathesan et al., 2016; Judd, 2017; Keating & Helsin, 2015; Murphy & Dweck, 2016; Rattan et al., 2015; Thoonen et al., 2011; Yeager & Dweck, 2012). Their consensus is that encouraging students to possess a *growth mindset* toward intelligence, ability, and talent increases student achievement. In addition, these researchers agree that the idea of the continual growth of intelligence, ability, and talent encourages effort development when faced with challenging tasks.

Simon Sinek (2019) offered the term *infinite mindset*, defining it as a mindset that strives to prolong engagement rather than complete a task. These growth and infinite mindset concepts promote lifelong learning by implicitly stating that learning experiences never cease. From personal experience, school leaders and teachers are encouraged to promote growth and infinite mindsets within their students. Yet, school leaders have rarely encouraged the researcher to develop a growth and infinite mindset toward her own intelligence, ability, and talent.

Novak et al. (2014) stated that educational leadership "...requires a reflective commitment to developing people, ideas, and adventures" (p. 3). Therefore, school leaders have the potential to develop and encourage teachers to become lifelong learners who are self-reflecting risk-takers who ask for guidance while listening to new ideas with open minds (Kotter, 2012). Dweck's concept of a growth mindset shares Kotter's lifelong

learning attributes. The researcher's experience could be an outlier; therefore, this study sought to provide data to help determine educators' beliefs about each other.

Theoretical Framework

Grounding this research are the concepts of the humanistic approach to learning, transformational leadership style, and Dweck's (2012) mindset theories.

The humanistic approach, developed by Abraham Maslow (1943), theorizes that people are inherently good, and each individual strives to reach his or her full potential. This learning approach is not limited to pedagogical practices. Evidence of humanistic approaches is also in andragogy approaches, such as Jarvis's *Learning Process* model. In this model, learning begins with an experience within a learner's world that activates the senses into "... knowledge, skills, attitudes, values, emotions, and so on" (Merriam et al., 2007, p.100). Once a learner has had an experience, the learner interprets and reacts to the experience by thinking, doing, and feeling. The convergence of this model and the humanistic approach could lead one to believe that people have *unlimited learning potential*. Unlimited learning potential implies a capacity within everyone to always be capable of growth in knowledge, skills, attitudes, values, and emotions.

Transformational leadership is an approach that empowers, engages, and connects people by allowing them to assess emotions, values, ethics, standards, and goals (Northouse, 2007). Thoonen et al. (2011) argued that transformational leadership stimulated teacher learning and motivation more than any other leadership style. This leadership style is essential to inspire others to engage in self-actualization and realization. Transformational leadership also allows leaders and those led to have initiative and a strong base of morals and ethics (Northouse, 2007). This leadership style

helps support the value of growth within an individual.

The work of several researchers illustrates how life, in general, can be supported with a mindset of individual growth (Dweck, 2009; Dweck, 2012; Duckworth, 2016; Miller, 2016; Sinek, 2011, 2019). Dweck (2012) explained that accepting challenges is utilizing growth. Duckworth (2016) stated that effort is worth more than talent. Duhigg (2012, 2016) explains that whom one wants to become is derived from the habits he or she makes today. Simon Sinek (2011, 2019) shared ideas surrounding the pursuit of purpose and joy in playing the infinite games of life itself. These researchers optimistically create awareness of inspiring others and oneself that each day presents an opportunity to choose growth through accepting challenges, giving effort, creating habits, and finding joy.

These concepts of learning, leadership, and mindset theories relate to individuals' desire to grow. However, through personal experience, the researcher has witnessed human elements within our educational systems that do not promote this level of growth. While current society focuses on the shortcomings of individuals rather than strengths (Rath, 2007), what is the focus of K-12 educators? Do educators believe in each others' ability to make a difference and capacity to grow in ability and talent? Through this study, the researcher hoped to answer this question by focusing on educators' efficacy and mindset perceptions of each other.

Problem Statement

Several studies have proven how efficacy can impact the educational field for teachers and school leaders (Allinder, 1994; Bandura, 1993; Gibson & Dembo, 1984; Guskey, 1988; Leithwood & Jantzi, 2008; McCullers & Bozeman, 2010; Stein & Wang,

1988; Thoonen et al., 2011). Several studies support the notion that teachers who hold high levels of efficacy yield higher levels of professional commitment, development, and instruction (Coladarci, 1992; Geijsel et al., 2009; Goddard et al., 2000; Smylie, 1988; Tschannen-Moran & Woolfolk Hoy, 2001; Wheatley, 2002). School leaders' efficacy can influence staff (Leithwood & Jantzi, 2008; Petridou et al., 2014). Some studies even related school leaders' instructional leadership to teachers' self-efficacy beliefs (Calik et al., 2012; Ross, 1994). However, little research is available on whether teachers hold the same efficacy perceptions as school leaders.

Several studies explain teachers' importance in holding a growth mindset toward students (Dweck, 2013; Dweck et al., 2011; Rattan et al., 2015). Some studies have addressed how teacher mindsets are connected to professional development (Gero, 2013) and performance evaluations (Silbaugh, 2016). In reference to school leader mindsets, Mlakar (2019) concluded that school leaders hold a growth mindset toward someone else's intelligence, talent, and ability. Monistere (2019) connected mindsets to retention. However, each of these studies points out the lack of research on K-12 school leaders' and teachers' mindsets (Gero, 2013; Mlakar, 2019; Monistere, 2019; Silbaugh, 2016).

With the little research into teachers' and school leaders' efficacy and mindset perceptions, this study sought to gauge current educators' perceptions because it is unknown if educators hold high levels of efficacy (e.g., personal actions make a difference) and growth mindset (e.g., growth is possible for all) for each other. Therefore, this study was designed to help fill the research gap by exploring and comparing the efficacy and mindset perceptions of 9-12 school leaders and teachers toward one another.

Purpose of the Study

This quantitative study aimed to identify and compare the efficacy and mindset perceptions of school leaders and teachers within public high school settings in Florida. School leaders' and teachers' perceptions of efficacy toward school leadership and perceptions of mindset toward teachers' growth potential in ability and talent were captured and analyzed. In addition, this study sought to compare the efficacy and mindset perceptions of current 9-12 educators to those of the past to determine if perceptions have changed over time within educational settings. Lastly, this study sought to determine if there was any correlation between mindset and efficacy perceptions among school leaders and teachers.

Research Questions

The following research questions guided this quantitative study:

1. What levels of efficacy do educators perceive for their school's leadership?
 - a. What levels of self-efficacy do school leaders perceive for their leadership?
 - b. What levels of efficacy do teachers perceive for school leadership?
2. What mindset do educators hold about teachers' abilities and talents?
 - a. Do school leaders hold a fixed or growth mindset toward/regarding teachers' abilities and talents?
 - b. Do teachers hold a fixed or growth mindset toward/regarding fellow teachers' abilities and talents?
3. Have educators' perceptions changed over time?
 - a. Is there a significant difference between today's school leaders'

perceptions of efficacy (self-efficacy and collective efficacy) and school leaders of 2008?

- b. Is there a significant difference between today's teachers' perceptions of mindset toward teachers' talent and ability (fixed or growth) and teachers of 2013?

The null hypothesis is that educators' perspectives of mindset and efficacy toward fellow educators have not changed significantly over the years. The alternative hypothesis is that educators' perspectives of mindset and efficacy toward fellow educators have changed.

- 4. Is there any correlation between educators' perceptions of mindset and efficacy?
 - a. Is there any correlation between school leaders' perceptions of self-efficacy and teachers' abilities and talents?
 - b. Is there any correlation between teachers' perceptions of self-efficacy and teachers' abilities and talents?

The null hypothesis is that there is no significant correlation between the variables of educators' perspectives of mindset and efficacy. Conversely, the alternative hypothesis is that educators' mindsets and efficacy variables have a significant correlation.

Significance of Study

The goal of growth-minded leaders is to encourage risk-taking and trail-blazing actions and discourage the fear of mistakes and failures (Dweck, 2013). However, in the researcher's personal experience, the goal of growth for all halts when discussing the growth of teachers and school leaders. Little research exists analyzing the mindsets of

school leaders and teachers (Fisher, 2018; Gero, 2013; Monistere, 2019; Mlakar, 2019; Silbaugh, 2016). Therefore, this study is significant for filling the research gap that exists.

Through the growth mindset, people believe that "becoming is better than being" (Dweck, 2007, p. 25). Schools are generally associated with this notion of growth for their students. This research is significant because it helps gauge if our current 9-12 educators also believe in this concept of growth for themselves. Understanding current educators' efficacy and mindset perceptions toward each other could foster discussions of how educators' efficacy and mindset perceptions toward each other affect school culture, teacher burnout, collective efficacy, and school achievement.

Limitations and Delimitations of the Study

One limitation of this study was the fact that there were only fifty-three participants within the study (forty-four teachers and nine school leaders). The research was completed in Florida in two different districts in 2021. Therefore, multiple districts, buildings, and participant-level permissions were needed for this study. Limitations of research existed due to one cooperating district that only allowed contact with four school leaders and ten teachers to inquire about potential participation in the study. Building-level permission was challenging to gain in the second cooperating district due to inaccessible employee email directories.

A second limitation involved collecting only quantitative data via electronic surveys delivered via school email. Potential participants received the survey link through their district emails. However, with the limited number of potential participants in one district and the lack of employee email directory access, the number of potential participants the researcher could email through Qualtrics reduced dramatically. As a

result, building-level principals were asked to forward the study's introductory and reminder emails to staff.

Timing presented another limitation of the study. Data collection was completed in March-May 2021, during the COVID-19 pandemic. During this time, schools discouraged visitors on campus. Leaving anything with the school for distribution was also discouraged. Therefore, electronic communication was encouraged by districts as the only form of communication. Therefore, communication was restricted to email to solicit participation in the study.

Another limitation of the study was the adaptations of previously used instruments. For example, the study utilized two adapted surveys from previously published works. The possibility that the adaptation omitted an area of significance in the categories' correlations exists.

The delimitations of this study focus on the population studied. While this topic could have investigated district leadership, school leaders were defined as those who directly supervise teachers and students. The specific group containing principals, assistant principals, deans, and instructional coaches employed at high schools created the pool of school leaders. The location of employment was also a delimitation of the study.

Chapter Summary

In summary, this quantitative study aimed to identify and analyze the perceptions of school leaders and teachers toward efficacy and mindset within a 9-12 school district in Florida. This topic is essential because school leaders and teachers should communicate professional efficacy and growth toward each other to create an impactful

and positive learning atmosphere for themselves and the students, but it is unknown if they do. This study has the potential to make a needed contribution to the literature by filling a research gap and allowing a foundation for future research. Insight into the beliefs of school leaders and teachers regarding mindset and efficacy is provided through this study. This chapter also discussed and presented this study's research questions, hypotheses, limitations, and delimitations. In Chapter 2, the literature review conducted for this topic are discussed.

CHAPTER TWO: LITERATURE REVIEW

Like many professions, teaching requires individuals to adapt and change throughout their careers. In theory, this continual change and growth should create lifelong learners. "Being a lifelong educator is vital for educational leadership; it requires a reflective commitment to developing people, ideas, and adventures" (Novak et al., 2014, p. 3). Kotter (2012) identified certain habits formed by lifelong learners: risk-taking, humble self-reflection, solicitation of opinions, careful listening, and openness to new ideas. All of these habits can be directly related to self-efficacy, the belief that one's actions make a difference, and growth mindset, the belief that one's intelligence, ability, and talent can change. Therefore, this quantitative study aims to identify if school leaders and teachers hold high levels of efficacy and a growth mindset toward each other's ability to make a difference and to grow in talent.

Efficacy

The term efficacy originated in the 1520s; however, in 1977, Albert Bandura proposed the theoretical framework of self-efficacy. Bandura (1977) defined self-efficacy as the personal effort made by individuals to overcome challenges in their life. Since then, self-efficacy has evolved to include beliefs about overcoming challenges, not just the effort expended. "In addition to self-efficacy beliefs, people have expectations about

what actions will produce the desired outcome" (Driscoll, 2005, p.316). In American schools, it seems producing outcomes is the goal of education because it relies on a strict system of accountability.

In *Visible Learning*, Hattie (2009) labeled collective teacher efficacy as the number one influencer of student achievement. Collective teacher efficacy is the shared belief about completing certain behaviors or tasks to influence outcomes positively—all educators within an educational organization share collective teacher efficacy. Many studies evaluate school leaders' collective efficacy (Leithwood & Jantzi, 2008; Petridou et al., 2014), but the separation of efficacy amongst school leaders and teachers and their perceptions of each other is missing.

Teacher Efficacy

Several studies have documented the importance of teacher efficacy on student achievement and agree that educators with high efficacy experiment with instructional practices (Allinder, 1994; Guskey, 1988; Stein & Wang, 1988; Thoonen et al., 2011). Educators with high efficacy exhibit perseverance with struggling students (Gibson & Dembo, 1984; Thoonen et al., 2011). Coladarci (1992) discovered that teachers with high self-efficacy levels have higher levels of professional commitment. Studies agree that teacher efficacy is related to professional development and instruction (Geijsel et al., 2009; Goddard et al., 2000; Smylie, 1988; Tschannen-Moran & Woolfolk Hoy, 2001; Wheatley, 2002). Thoonen et al. (2011) also determined that highly efficacious educators participate in higher-level lesson planning and are open to new ideas. It seems teacher efficacy creates an educator that is more involved in his or her professional development and instructional practices.

Self-efficacy is one of the most important motivation factors for teacher learning and teaching practices (Bandura, 1993; Geijsel et al., 2009; Thoonen et al., 2011). Research has illuminated that teacher self-efficacy remains stable over time (Ross, 1994; Thoonen et al., 2012). Thoonen et al. (2012) conclude that possibly years of experience contribute to self-efficacy stability due to Bandura's core notion that mastery is a factor of self-efficacy. However, Tschannen-Moran and Barr (2004) suggested that certain conditions positively increase teachers' self-efficacy.

School Leader Efficacy

School leader efficacy is the belief held by individual school leaders on their ability to affect change or particular outcomes. Researchers agree that school leaders' efficacy beliefs are an area of research that needs more attention (Chemers et al., 2000; Leithwood & Jantzi, 2008; Petridou et al., 2014). Some research found that school leaders have a small direct influence on educators' job capacities and performance (Leithwood et al., 2008; Leithwood & Jantzi, 2006; Leithwood & Mascall, 2008, Thoonen et al., 2011). Other research states that school leader self-efficacy levels highly correlate with their actions and strategies to attain educational goals (McCullers & Bozeman, 2010).

Leaders who hold high levels of self-efficacy tend to pursue more challenging goals; leaders with lower self-efficacy avoid higher-order goals (Petridou et al., 2014). Petridou et al. (2014) suggested that school leaders' efficacy can influence staff and students alike. However, it is unknown if teachers can perceive the efficacy beliefs of school leaders and their leadership capabilities.

One study examined school leadership at the district and school levels. Leithwood

and Jantzi (2008) completed a study to measure two types of efficacy: 1) leader's self-efficacy (LSE) and 2) leaders' collective efficacy (LCE). "Efficacy is a key variable in better understanding effects in most organizations" (Leithwood & Jantzi, 2008, p. 497). The researchers reported significant relationships between school leaders' efficacy and school leadership dimensions, including developing people and managing instructional programs.

Several studies have revealed significant relationships between school leaders' instructional leadership and teachers' self-efficacy (Calik et al., 2012; Ross, 1994). Revealing the comparisons of school leadership efficacy between school leaders and teachers have not been researched thoroughly in the literature.

Mindsets

Mindset can either be a formidable supporting or sabotaging factor. Dweck has researched the power of mindset since 1988. In Dweck's book, *Mindset* (2013), she identified two types of mindsets: fixed and growth. These two mindsets guide this study.

Dweck (2012) explained that there are two factions regarding tasks and beliefs within the mind. A fixed mindset believes that one cannot change aspects of self, such as creativity, intelligence, personality. The fixed mindset believes that intelligence is something an individual is born with or without. Individuals who blame or make excuses typically have a fixed mindset (Dweck, 2012). A fixed mindset believes that naturally talented individuals do not need help or practice because they are as good now as they will ever be. Intelligence and talent are not qualities that can be developed within a fixed mindset (Dweck, 2010). Individuals with a fixed mindset typically give up and ignore feedback (Dweck, 2012; Heslin & Keating, 2013).

A growth mindset is a notion that intelligence can change through effort. It believes that one can develop aptitude, talents, interests, and even temperaments. Dweck (2013) also talks about how individuals can influence the mindset. A growth mindset creates a love of challenges and an aptitude for cultivating qualities through effort (Dweck, 2012; Dweck & Leggett, 1988). Failure does not define a growth-minded individual because failure is evidence of a lack of experience and skill wrapped in an opportunity to grow (Dweck, 2010). Instead, growth is the process of learning from mistakes (Dweck, 2014b).

Individuals do not have one mindset that rules all beliefs; mindset can change depending on the topic or task. Fostering a growth mindset improves student motivation, raises grades, and reduces racial/gender/social class gaps (Rattan et al., 2015). In addition, a growth mindset helps students to see school as relevant to the future and belong academically and socially within schools (Dweck et al., 2011). If a growth mindset influences children and young adults, is the same true for adults?

Adult Mindsets

Dweck discussed mindset influence in the K-12 setting with students; she also made a point to discuss these mindsets in adults. One famous example of Dweck's growth mindset is basketball star Michael Jordan (Dweck, 2012). Michael Jordan was a player who started 'being cut' from basketball tryouts; yet, he became one of the game's greatest players. He made it a point to keep learning and growing his ability and knowledge of his favorite game throughout his career. Mindset exists outside of the classroom.

There is minimal research concerning adults' growth and fixed mindsets in the literature. One study by Barone (2013) focused on growth mindset contributing to a

lifelong improvement journey. A growth mindset was proven to indirectly predict weight stigma in adults through personal responsibility and efficacy (Burnette et al., 2017).

Dweck (2012) discussed the change of intellectual achievement of individuals living in the Middle East. She showed that the growth mindset caused an increase in conflict resolution, cross-race relations, and willpower. At the same time, it encouraged the decrease of chronic aggression.

The discussion of mindset expands organization and supervision. Dweck (2009) discussed the growth mindset on the organizational level, which values passion, acquisition, and skills improvement. Miller (2016) added that a growth mindset could help develop organizational employees into individuals who thrive through learning. Heslin and Keating (2013) connected growth mindsets to preparing for and securing future career success. Dweck (2014a) stated:

Supervisors in growth-mindset companies expressed significantly more positive views about their employees than supervisors in fixed-mindset companies, rating them as more innovative, collaborative, and committed to learning and growing. They were more likely to say that their employees had management potential.
(p.28)

The notion that mindset can positively influence beliefs towards learning in organizations helps leaders improve the performance and possibly the satisfaction of their employees. Murphy and Dweck (2016) pointed out that organizations can project mindset upon consumers. With the potential of mindset to impact so many groups of people, the proposed research hopes to focus on educators' mindsets to help define commonly held mindsets toward fellow educators.

Teacher Mindsets

Growth-minded individuals show resilience through setbacks and learn from criticism (Dweck, 2012; Dweck & Leggett, 1988). Yeager and Dweck (2012) expressed that an essential component for success in school and life is resilience; therefore, it is crucial to emphasize people's potential to change. Auten (2014) studied the effect of community college teachers' mindsets on adults. Her study indicated that both teacher and student mindsets played a significant role in success at the post-secondary level.

The educator mindset affects both teachers and students. Dweck (2013) explained that if the teacher holds a fixed mindset, student achievement remains current in many educational settings. However, if teacher mindsets are growth-oriented, then low-performing students often increase to become high performers. Dweck (2014b) explained that many teachers believe that they were born to teach, yet they only work a year or two before leaving the profession. This lack of perseverance could be due to their mindset. More evidence is needed to understand teacher perceptions of mindset and how it can affect job satisfaction and performance.

Gero (2013) researched growth-mindset among teachers, defining the term teacher mindset to represent teacher perspectives of teaching ability. This study "...provides evidence that teacher mindset can uncover powerful influences on the improvement of teaching" (Gero, 2013, p. 134). He further states that the teacher's mindset should be encouraged within the teaching profession. Gero's (2013) research provokes the question: is a teacher growth mindset limited or supported by school leaders?

School Leader Mindsets

Evidence of the discussion surrounding organizational leaders' mindset is present in the literature; the effects of the school leader mindset have not had much attention. Fisher (2018) stated that there had been no research to investigate mindsets held by school leaders and their effects on teachers. During all experiences, school leaders can encourage teachers to develop a growth mindset. A growth mindset exists in the statement, "I'm good, but not as good as I ought to be" (Denny, 2006, p. 95). When leaders have a growth mindset, they stay in a learning mode, often learning from those they lead (Heslin & Keating, 2013). With mindsets influencing many areas, it is critical to examine the mindsets of influencers of every profession, especially educators.

Monistere (2019) explained that principals with a growth mindset believe they can acquire any skill or level of intelligence over time. Conversely, fixed-mindset leaders often make rapid decisions, and they rarely see change as a chance of growth (Dweck, 2014a; Sargent, 2003). Mlakar (2019) confirmed that 77.7% of building principals hold a growth mindset toward individuals' ability to change their intelligence. However, the study did not refer directly to teachers' or principals' mindsets regarding individuals' growth potential of talent and ability.

Chapter Summary

Efficacy and mindset are closely related entities researched often; however, there is a gap in the literature connecting school leaders' and teachers' efficacy and mindset beliefs and their impact on collective teacher efficacy. Throughout this chapter, research involving topics of efficacy and mindset has been discussed. The impact of teacher and school leader efficacy on student achievement and professional development is evident within the literature. The influence of a growth mindset among

students and adults has also been thoroughly researched. The efficacy and mindset research studies usually focus on student achievement, not perceptions amongst school leaders or teachers toward colleagues. Chapter three discusses the methodology guiding this study.

CHAPTER THREE: METHODOLOGY

The purpose of the study was to understand the efficacy and mindset perceptions held by 9-12 school leaders and teachers toward each other as well as to determine if perceptions have changed over time compared to educators from the past. The sample included employed school leaders and teachers in public 9-12 schools within two Florida school districts.

School leaders and teachers completed a web-based survey of 24 questions gauging their perceptions of school leaders' efficacy and mindsets towards teachers. The instrument utilized portions of Letihwood and Jantzi's (2008) instrument to measure *leader efficacy* and Dweck's instrument to measure *teachers' mindset* as used by Gero (2013). Surveys were collected and stored through Qualtrics; then, data were transferred to a local computer for statistical analysis. This section addresses research questions, design, pilot study, participants, instruments, procedures, and data analysis.

Research Questions

1. What levels of efficacy do educators perceive for their school's leadership?
 - a. What levels of self-efficacy do school leaders perceive for their leadership?
 - b. What levels of efficacy do teachers perceive for school leadership?
2. What mindset do educators hold about teachers' abilities and talents?
 - a. Do school leaders hold a fixed or growth mindset toward/regarding

- teachers' abilities and talents?
 - b. Do teachers hold a fixed or growth mindset toward/regarding fellow teachers' abilities and talents?
3. Have educators' perceptions changed over time?
- a. Is there a significant difference between today's school leaders' perceptions of efficacy (self-efficacy and collective efficacy) and school leaders of 2008?
 - b. Is there a significant difference between today's teachers' perceptions of mindset toward teachers' talent and ability (fixed or growth) and teachers of 2013?
4. Is there any correlation between educators' perceptions of mindset and efficacy?
- a. Is there any correlation between school leaders' perceptions of self-efficacy and teachers' abilities and talents?
 - b. Is there any correlation between teachers' perceptions of self-efficacy and teachers' abilities and talents?

Research Design

This study obtained quantitative data through a survey instrument to assess school leaders' and teachers' perceptions of leadership efficacy and mindset toward teachers. In addition, this study utilized survey research to gauge the perceptions of efficacy and mindset of 9-12 educators. The goal of the survey was to collect data on four different non-experimental variables: school leader perceptions of leader efficacy (SLLE), teacher perceptions of leader efficacy (TLE), leader mindset toward teachers' ability and talent (SLMT), and teacher mindset toward teachers' ability and talent (TMT), at a single point

in time to provide cross-sectional data. Upon receiving approval from the university's Institutional Review Board, school leaders' and teachers' surveys provided data for this study. The units of analysis were school leaders and teachers in two Florida school districts.

Pilot Study

Prior research has not measured leadership efficacy and teacher mindset with the instrument utilized in this study; therefore, a pilot study was completed. The sample included forty-three K-12 educators: six school leaders and thirty-seven teachers. To ensure participants were not selected for both the pilot and actual study, the pilot study was completed within a different school district than the actual research study.

The Leithwood and Jantzi's (2008) leader efficacy questions and Gero's (2013) teacher mindset questions were tested for reliability in prior research. Due to the time between previous studies and the current study, the researcher computed the Cronbach's alpha for each key variable to verify the instrument's reliability. In the pilot study, the school leader efficacy portion of the survey had high reliability ($\alpha = .922$). The survey questions measuring mindsets towards teachers' ability and talent also had high reliability ($\alpha = .880$).

Participants

The target population for this quantitative non-experimental study was school leaders and teachers in Florida. In 2018, the Florida Department of Education reported the employment of 185,859 teachers and 9,406 school leaders within the state. The sample was school leaders and teachers employed within two of Florida's public 9-12 school districts.

The researcher gained permission to electronically contact around 350 teachers and 35 school leaders from two school districts within Florida to participate in this research study. School leaders were limited to individuals employed as principals, assistant principals, deans, or instructional coaches. School leaders and teachers from public high schools with a student population of over 2,000 created the study's sample. Participants reported varying ages, ethnicities, gender, years of experience, degree attainment, and hopes for future employment. The survey's first question provided the researcher with participant's informed consent, and all survey responses were automatically anonymized by Qualtrics when submitted.

Instrumentation

This research study collected data through the use of a survey. The survey's web link was shared with school leaders and teachers through their district emails. This study's instrumentation combined a demographic questionnaire and adaptations of two previously researched instruments.

The first section of the survey was adapted from a portion of Leithwood and Jantzi's (2008) instrument measuring *leader efficacy*, answering research questions 1, 1a, and 1b. Leithwood and Jantzi (2008) initially studied the leader efficacy at the building and district level; however, this study only looked at building level leadership. Therefore, not all Leithwood and Jantzi's (2008) instrument categories were used. Instead, the instrument's *leader self-efficacy* (LSE) and *leader collective efficacy* (LCE) questions were utilized.

The survey's LSE questions were scored on a 6-point Likert scale of 1 (highly incompetent) to 6 (highly competent). The LCE questions were scored on a 6-point Likert

scale of 1 (strongly disagree) and 6 (strongly agree). In this research study, Leithwood and Jantzi's instrument questions on LSE were altered to ask participants, "To what extent do you feel *you* are able to...." However, in this research study, participants were asked, "To what extent do you feel *your school leaders* are able to...." Individual scores from all ten items measuring efficacy perceptions of school leaders averaged to yield an overall score gauging overall perceptions of school leaders' efficacy.

While school leader responses yielded sub-variables of LSE and LCE, these two combined sub-variables create the two main key variables for the study. The researcher created the variables of *School Leader Perceptions of Leader Efficacy* (SLLE) and *Teacher Perceptions of Leader Efficacy* (TLE) by analyzing the first ten questions within the survey. Since Leithwood and Jantzi (2008) reported leaders' LSE and LCE scores in their research, the researcher only used school leaders' LSE and LCE scores to complete a comparison. This data helped to answer research question 3a. In Table 1, the reliabilities of LCE and LSE from Leithwood and Jantzi's (2008) study are reported.

Table 1

Sub-variables Data Summary from Leithwood & Jantzi (2008)

Variables	Number of Items	Number of Responses	Cronbach's alpha	Mean	Variance
LSE	6	96	.88	4.03	.336
LCE	4	96	.79	4.80	.672

The second portion of this research study instrument was adapted from Gero's (2013) survey, answering the research questions 2, 2a, and 2b. Gero (2013) used seven

Likert scale questions on a fixed and growth mindset adapted from Dweck's *Theories of Intelligence Scale*. These questions were scored on a 6-point Likert scale of 1 (strongly disagree) and 6 (strongly agree). These seven questions contain both fixed and growth mindset statements. The four questions gauging the fixed mindset were reverse-scored (e.g., 1 becomes 6, 2 becomes 5, 3 becomes 4, 4 becomes 3, 5 becomes 2, 6 becomes 1). The individual scores from the seven questions were averaged together for a single overall score gauging perception of mindset towards teachers' ability and talent.

The means of teachers' perceptions of mindset were compared to Gero's (2013) reported data on growth and fixed mindsets. Since Gero (2013) only included teachers in his study, school leaders' perceptions were not compared. These seven questions created the key variables of *School Leader Mindset Toward Teacher's Ability and Talent* (SLMT) and *Teacher Mindset Toward Teacher's Ability and Talent* (TMT), helping to answer research question 3b. Reliabilities from Gero's (2013) study are reported in Table 2.

Table 2

Sub-variables Data Summary from Gero(2013)

Variables	Number of Items	Number of Responses	Cronbach's alpha	Mean	Variance
Growth Mindset	3	310	.79	5.40	.871
Fixed Mindset	4	310	.96	2.62	1.44

The key variables of SLLE/SLMT and TLE/TMT were analyzed to determine if any correlations existed among the variables within the study, which answers research question 4. The last section of the survey was the demographic questions. Demographic data yielded a descriptive analysis of the population sampled. These questions asked

school leaders and teachers to identify their gender, age, ethnicity, highest degree earned, years of educational employment, and future employment aspirations. These identifiers described the characteristics of the population.

Procedures

Data collection for this study began after the researcher gained approval from the Florida Atlantic University Institutional Review Board (FAU IRB). Obtained Permissions were from two Florida school districts for data collection. One district allowed the researcher to directly contact school principals for additional permissions, while the other district contacted school principals on behalf of the researcher. As a result, four schools within the two districts agreed to participate in this research study.

The instrument in this study was distributed to the school leaders and teachers electronically through the web software Qualtrics. The researcher sent an introductory email to potential participants explaining the study and the survey. The email had an embedded link to the Qualtrics survey, which contained the consent paragraph, leadership efficacy questions, mindset questions, and demographic questions. The estimated completion time of the survey was around 3 minutes.

Participants consented to participate in the study by clicking "I agree" at the beginning of the survey. Qualtrics provides a safe, secure, private online platform to conduct research. Thus, data were kept confidential, with no identifying information provided to the researcher. Two follow-up/reminder emails were sent following the survey's initial distribution to increase the response rate, and the survey remained open for two weeks. All FAU IRB guidelines and policies were adhered to throughout the research study.

Data Analysis

The survey data were collected, compiled, and stored with Qualtrics; data were downloaded for statistical analysis on a local computer.

Data were split into school leaders and teachers for most of the calculations. For example, to answer research questions 1, 1a, and 1b, *School Leader Perceptions of Leader Efficacy* (SLLE) and *Teacher Perceptions of Leader Efficacy* (TLE) variables were created by calculating the overall mean of the first ten questions within the instrument.

To answer research questions 2, 2a, and 2b, the researcher calculated the descriptive statistics of the *School Leader Mindset Toward Teacher's Ability and Talent* (SLMT) and *Teacher Mindset Toward Teacher's Ability and Talent* (TMT) variables.

To answer research question 3, the researcher will use the sub-variable created from SLLE and TMT. SLLE sub-variables of *Leader Self-Efficacy* (LSE) and *Leader Collective Efficacy* (LCE) were compared to Leithwood and Jantzi's (2008) research data using an independent sample t-test. Likewise, TMT statistics obtained in this study created the sub-categories of fixed mindsets (FM) and growth mindsets (GM). These means were compared to Gero's (2013) research data using an independent sample t-test.

Research question 4 required the researcher to conduct Pearson product-moment correlations. Pearson product correlation estimated the strength of relationships between the key variables of within the perceptions of school leaders (SLLE/SLMT) and teachers (TLE/TMT).

Chapter Summary

In this chapter, the research design, pilot study, participants, instrumentation,

procedures, and data analysis were discussed. This study utilized a web-based survey derived from two instruments to collect quantitative data to define the variables of school leaders' perceptions of leadership efficacy (SLLE), teachers' perceptions of leadership efficacy (TLE), school leaders' mindset perspectives towards teachers' ability and talent (SLMT), and teachers' mindset perspectives towards teachers' ability and talent (TMT). This study's findings are reported in the next chapter.

CHAPTER FOUR: FINDINGS

Introduction

This study aimed to provide more insight into the educators' perceptions of leadership efficacy and mindset towards teachers. The following chapter will review the research questions, survey response rate, demographic data, summary information obtained for each variable collected, detail the statistical tests, and report the findings.

Research Questions

1. What levels of efficacy do educators perceive for their school's leadership?
 - a. What levels of self-efficacy do school leaders perceive for their leadership?
 - b. What levels of efficacy do teachers perceive for school leadership?
2. What mindset do educators hold about teachers' abilities and talents?
 - a. Do school leaders hold a fixed or growth mindset toward/regarding teachers' abilities and talents?
 - b. Do teachers hold a fixed or growth mindset toward/regarding fellow teachers' abilities and talents?
3. Have educators' perceptions changed over time?
 - a. Is there a significant difference between today's school leaders' perceptions of efficacy (self-efficacy and collective efficacy) and school leaders of 2008?

- b. Is there a significant difference between today's teachers' perceptions of mindset toward teachers' talent and ability (fixed or growth) and teachers of 2013?
4. Is there any correlation between educators' perceptions of mindset and efficacy?
- a. Is there any correlation between school leaders' perceptions of self-efficacy and teachers' abilities and talents?
 - b. Is there any correlation between teachers' perceptions of self-efficacy and teachers' abilities and talents?

Participation Rate

The target population for this quantitative non-experimental study was school leaders and teachers in Florida. In 2018, the Florida Department of Education reported 185,859 teachers and 9,406 school leaders employed. The sample consisted of school leaders and teachers employed within two of Florida's public 9-12 school districts. The proposed research included 40+ schools, 6,000+ teachers, and 400+ school leaders employed in the two districts at the high school level. However, due to restrictions imposed by the school districts, the research was limited to request participation from around 350 teachers and 35 school leaders during the research study.

Qualtrics utilized electronic mail to send and gather responses from individuals. Qualtrics automatically anonymized responses from all participants upon submission. Of the 35 school leaders emailed, nine responded with complete survey submissions. Therefore, the participation yielded a total response rate of 25.8%. Of the 350 teachers emailed, 44 responded with complete responses to the survey. Thus, the response rate for teachers was 12.6%. Low response rate for school leaders and teachers could be

contributed to limitation set by cooperating districts to solicit participants for the study through electronic email. Also, one district limited the number of school leaders and teachers the researcher could contact within its district, and one district did not share a complete updated employee directory with researcher.

Past research studies did not provide a single mean and standard deviation for the variables SLLE and TMT; therefore, the researcher analyzed the sub-variables of LSE, LCE, GM, and FM with previous research studies (Gero, 2013; Leithwood & Jantzi, 2008) to determine suggested sample size. Once the study was completed, post-hoc power analysis was calculated using the means and standard deviation from past studies with present study's mean and number of responses. Results of the power analysis are shown in Table 3.

Table 3

Power Analysis

Variables	Mean, population	Mean, study group	Suggest Sample Size	Post-hoc Power
LSE	4.03	4.65	5	89.5%
LCE	4.80	5.00	132	11.0%
GM	5.40	5.04	53	72.6%
FM	2.62	2.76	577	11.8%

Note. $\alpha = .05, \beta = 2$

Demographic Data

Forty-four teachers and nine school leaders participated in the research study. Of the sample, 38 educators were female (71.7%), and 15 educators were male (28.3%). The sample consisted of 38 Caucasians (71.7%) 9 Hispanics/Latinxs (17.0%), and 1 Asian, Black/ African American, and Other (1.9%). One participant (1.9%) preferred not to

disclose their ethnicity.

Concerning the participants' background of the participants, 45.3% were born between 1965- 1980 and held a Bachelor's degree (45.3%). The largest group of participants fell within sixteen to twenty years of experience (13.2%). 60.4% of the population sampled hope to remain employed at their current school, whether in their current or different position. Table 4 displays a detailed overview of demographic breakdown by school leaders and teachers.

Table 4*Sociodemographic Characteristics of School Leaders and Teachers*

Characteristic	School leaders		Teachers	
	n	%	n	%
Gender				
Male	1	11.1	14	31.8
Female	8	88.9	30	68.2
Ethnicity				
Asian	-	-	1	2.3
Black/African	-	-	1	2.3
Caucasian	8	88.9	30	68.2
Hispanic/Latinx	1	11.1	8	18.2
Pacific Islander	-	-	2	4.5
Prefer not to answer	-	-	1	2.3
Other	-	-	1	2.3
Birth Year				
After 1980	3	33.3	18	40.9
Between 1965- 1980	5	55.6	19	43.2
Between 1946-1964	1	11.1	7	15.9
Degree				
Bachelor	-	-	24	54.5
Master	7	77.8	15	34.1
Specialist	-	-	3	6.8
Doctorate	2	22.2	2	4.5
Years Employed in Education				
0-5 years			9	20.5
6-10 years	1	11.1	8	18.2
11-15 years	1	11.1	6	13.6
16- 20 years	3	33.3	11	25.0
21- 25 years	1	11.1	6	13.6
26- 30 years	2	22.2	4	9.1
31+ years	1	11.1	-	-
Future Goals				
I hope to remain in my current position within my current school.	3	33.3	23	52.3
I hope to move to another school, but remain in my current position.	1	11.1	5	11.4
I hope to gain a promotion within my current district.	5	55.6	1	2.3
I hope to be employed in a different profession.	-	-	4	9.1
I hope to be employed in another field within education.	-	-	11	25.0

Note. Dash indicates elements within the survey that participants did not report.

Analysis of Key Variables

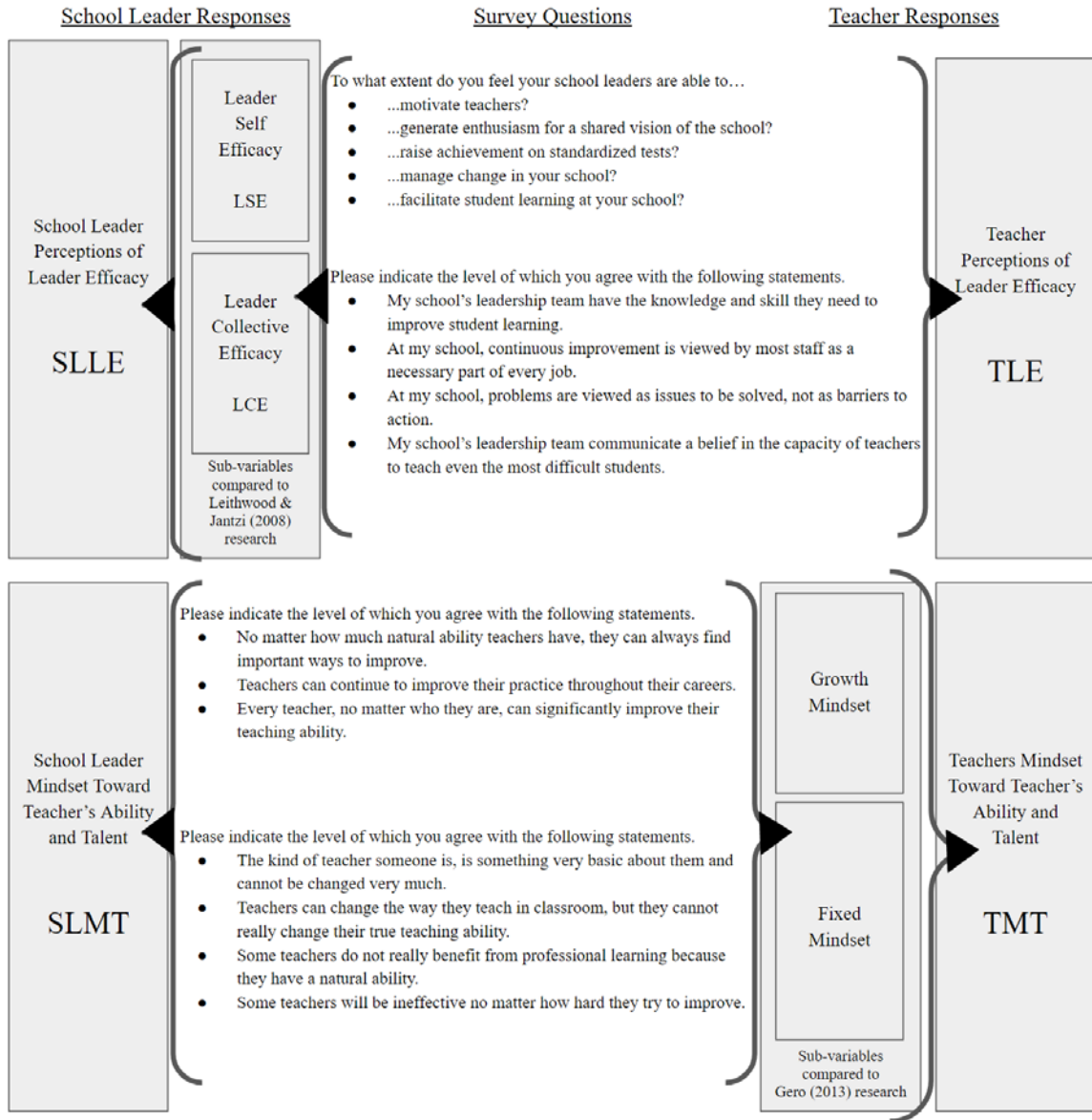
There are four key variables within this study: 1) *School Leader Perceptions of Leader Efficacy* (SLLE), 2) *Teacher Perceptions of Leader Efficacy* (TLE), 3) *School Leader Mindset Toward Teacher's Ability and Talent* (SLMT), and 4) *Teacher Mindset Toward Teacher's Ability and Talent* (TMT). The creation of SLLE and TLE variables helped split data analysis of the first ten research survey questions. The analysis of SLLE into sub-variables of LSE and LCE allowed for comparison with previous research by Leithwood and Jantzi (2008). SLMT and TMT were split data variables created from the seven mindset questions from the survey.

The fixed mindset questions were reverse scored in calculations to create continuity in raw data. The TMT variable was further analyzed with the sub-variables of Growth Mindset (GM) and Fixed Mindset (FM) to compare with previous research by Gero (2013). To help understand the analysis of variables, please see Figure 1.

The variable SLLE was used to answer research question 1a and 4a. While its sub-variables, LSE and LCE, were used to answer research question 3a. The variable TLE was used to answer research question 1b and 4b. SLMT variable was utilized to answer research question 2a and 4a; while the TMT variable helped research to answer research question 2b and 4b. The sub-variables of TMT, FM and GM, were used to answer research question 3b.

Figure 1

Flowchart of SLLE, TLE, SLMT, and TMT Variables



In Tables 5-7, the data analysis used to answer research question 1 and 2 are reported. School leaders and teachers scored highest when scoring their perceptions of teacher's talent and ability (SLMT \bar{x} = 4.92, TMT \bar{x} = 4.58). Teacher perceptions of leadership efficacy yielded the lowest mean (TLE \bar{x} = 3.76). To further understand the

key variables' components, the number of responses, the mean, and the standard deviation for each survey item were reported. School leaders scored the highest mean in knowledge and skill of leadership team ($\bar{x} = 5.22$), see Table 6. Teachers scored the highest mean in school leaders' ability to manage change ($\bar{x} = 4.02$).

Table 5

Raw Data Summary of Key Variables

Key Variables	n	Mean	Std. Dev.
SLLE	9	4.789	.660
TLE	44	3.764	1.001
SLMT	9	4.921	.485
TMT	44	4.584	.744

Note. SLLE=School Leader Perceptions of Leader Efficacy, TLE=Teacher Perceptions of Leader Efficacy, SLMT=School Leader Mindset Toward Teacher's Ability and Talent, TMT=Teacher Mindset Toward Teacher's Ability and Talent

Table 6*Analysis by Item of Key Variables: SLLE and TLE*

Item	SLLE			TLE		
	n	Mean	SD	N	Mean	SD
To what extent do you feel your school leaders are able to...						
Motivate teachers?	9	4.67	.866	44	3.50	1.303
Generate enthusiasm for a shared vision of the school?	9	4.33	1.118	44	3.55	1.190
Manage change in your school?	9	4.56	.882	44	3.64	1.296
Create a positive learning environment?	9	4.78	.833	44	4.02	1.171
Facilitate student learning at your school?	9	4.89	.782	44	3.89	1.104
Raise achievement on standardized tests?	9	4.67	.866	44	3.50	1.303
Please indicate the level of which you agree with the following statement.						
My school's leadership team have the knowledge and skills they need to improve student learning.	9	5.22	.667	44	4.00	1.201
At my school, continuous improvement is viewed by most staff as a necessary part of every job.	9	4.78	1.093	44	3.91	1.217
At my school, problems are viewed as issues to be solved, not as barriers to action.	9	5.00	.866	44	3.82	1.334
My school's leadership team communicate a belief in the capacity of teachers to teach even the most difficult students.	9	5.00	.866	44	3.82	1.352

Table 7 displays the raw means of mindset perceptions. Seven questions analyzed mindset toward teachers' ability and talent. All questions were scored on a scale of 1 (strongly disagree) to 6 (strongly agree). However, the questions conveyed both fixed and growth mindsets. Questions 1, 4, and 7 reflected a growth mindset; thus, growth-minded perceptions would yield a high mean score. Questions 2, 3, 5, and 6 reflected a fixed mindset; therefore, growth-minded individuals score low on these questions. For most data analyses, these fixed mindset questions were reverse-scored to yield a raw mean in a growth mindset perspective. In Table 7, school leaders reported a higher mean score in growth mindset questions than teachers. However, in one fixed mindset question pertaining to teacher ineffectiveness despite effort, teachers reported a lower mean score than school leaders.

Table 7*Analysis by Item of Key Variables: SLMT and TMT*

Item	SLMT			TMT		
	n	Mean	SD	n	Mean	SD
Please indicate the level of which you agree with the following statements...						
No matter how much natural ability teachers have, they can always find important ways to improve.	9	5.89	.333	44	5.30	.878
The kind of teacher someone is, is something very basic about them and cannot be changed very much. *	9	2.33	1.118	44	3.27	1.246
Some teachers do not really benefit from professional learning because they have a natural ability. *	9	1.89	.782	44	2.32	1.177
Teachers can continue to improve their practice throughout their careers.	9	5.89	.333	44	5.14	1.069
Teachers can change the way they teach in the classroom, but they cannot really change their true teaching ability. *	9	2.56	1.509	44	2.98	1.229
Some teachers will be ineffective no matter how hard they try to improve. *	9	3.44	1.333	44	3.02	1.470
Every teacher, no matter who they are, can significantly improve their teaching ability.	9	4.89	1.167	44	4.68	1.253

Note. Questions were answered on a scale of 1 (strongly disagree)- 6 (strongly agree). Questions 1, 4, and 7 were presented in wording reflecting a growth mindset; however, questions 2,3,5, and 6 were presented with wording reflecting in a fixed mindset.

T-tests Analysis

To conduct comparisons of means, the researcher utilized the statistical tool developed by Lieberman and Morris (2019). This tool tests the homogeneity of variance (HOV) assumption with both an ANOVA and Bartlett tests, then selects the appropriate t-test to calculate, either Gosset (Student, 1908) or Welch (1947). This tool also provides effect sizes from means, standard deviations, and sample sizes without requiring raw data.

An alpha level of .05 was used for the t-tests to measure the significant differences amongst the educators of the past and present. Both ANOVA and Bartlett tests were automatically used to determine the proper t-test needed for appropriate comparison of the data. If the HOV was not violated, then Gosset (Student, 1908) t-test was used; conversely, if HOV was violated, then Welch's test (1947) was used for analysis. Cohen's d was calculated to determine effect size between past and present data groups. Mean, standard deviation, and number of responses for this study's population are listed in Table 8.

Table 8

Raw Data Summaries of Sub-variables

Variable	Mean	SD	N
LSE	4.65	.74	9
LCE	5.00	.70	9
FM	2.76	.86	44
GM	5.04	.86	44

Note. LSE and LCE are sub-variables of SLLE; FM and GM are sub-variables of TMT.

In comparison of LSE and LCE perceptions from past and present school leaders, there was variance in homogeneity between the means of this study and the study of

Leithwood and Jantzi (2008) by ANOVA and Bartlett tests as seen in Table 9. Since variances were considered equal, the Gosset (Student, 1908) t-test was utilized to further analyze the sub-variable data for school leader perceptions. LSE from past and present studies was found to be significantly higher with a mean difference of .618, $t(103)=2.99$, $p=.004$, *Cohen's d*=1.04. There was no significant difference in the LCE means from the two studies.

Comparing FM and GM perceptions of teachers, initial ANOVA and Bartlett tests report difference in variance between the means of both groups within the two studies, as seen in Table 10. Since variances were not equal, Welch's (1947) test was utilized to complete the t-test analysis. Calculations revealed no significant difference between the means of FM and GM from this study and Gero's (2013) study.

Table 9*Sub-variables of Efficacy t-test Analysis*

Variable	study			Homogeneity of Variance Tests						Cohen's d			
	Mean	SD	n	ANOVA			Bartlett		t-test (two-tailed p)			(Pooled SD)	
				F	df _n	df _d	p	$\chi^2(1)$	p	t	df	p	
LSE	4.03	.58	96	1.62	8	95	.129	.94	.331	2.99	103	.004	1.04
LCE	4.80	.82	96	1.39	95	8	.327	.35	.555	.71	103	.481	.25

Note. t-test utilized for sub-variables is Gosset. Used with permissions by Lieberman and Morris (2019). Population means, standard deviation, and number of responses listed in Table 8. Study means, SD, and number of responses gathered from Leithwood & Jantzi (2008) research study.

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Table 10*Sub-variables of Mindset t-test Analysis*

Variable	study			Homogeneity of Variance Tests						Cohen's d			
	Mean	SD	n	ANOVA			Bartlett		t-test (two-tailed p)			(Pooled SD)	
				F	df _n	df _d	p	$\chi^2(1)$	p	t	df	p	
FM	2.62	.32	310	7.15	43	309	$p < .001$	111.82	$p < .001$	1.08	44.72	.285	.33
GM	5.04	.32	310	7.32	43	309	$p < .001$	113.20	$p < .001$.02	44.70	.982	.01

Note. t-test utilized for sub-variables is Welch. Used with permissions by Lieberman and Morris (2019). Population means, standard deviation, and number of responses listed in Table 8. Study means, SD, and number of responses gathered from Gero (2013) research study.

Correlation Analysis

A Pearson's product-moment correlation assessed the relationship between the four individual key variables (see Table 11). In addition, preliminary analyses for normality determined that the key variables were normally distributed, as assessed by Shapiro- Wilk's test ($p > .05$). There was a statistically significant, strong positive correlation between the variables of TLE and TMT, $r(44) = .60, p < .01$, with TLE explaining 35% of TMT, as seen in Table 11.

Table 11

Correlations of Raw Variables

Variable	Variable	n	Correlation	Lower Confidence Interval	Upper Confidence Level
SLLE	SLMT	9	-.11	-.721	.598
TLE	TMT	44	.60**	.362	.758

Note. SLLE=School Leader Perceptions of Leader Efficacy, TLE=Teacher Perceptions of Leader Efficacy, SLMT=School Leader Mindset Toward Teacher's Ability and Talent, TMT=Teacher Mindset Toward Teacher's Ability and Talent

** $p \leq 0.01$

Chapter Summary

Chapter 4 discussed the findings of the study including survey data and analysis. Demographics of the participants for both school leaders and teachers were displayed within the chapter. While the means of variables SLLE and TLE were calculated to address research question one, the means of SLMT and TMT were calculated to address research question two. Research question three data analysis involved independent t-tests from the mean populations from previous studies to the study's means of the sub-variables of LSE and LCE as well as FM and GM. Lastly, research question four was

answered by utilizing the statistical tool developed by Lieberman and Morris (2019) to analyze the correlation between SLLE/ SLMT and TLE/ TMT. Chapter 5 summarizes the study's findings while discussing the impact this information could have on the educational field. It also discusses potential future research and conclusions of the study.

CHAPTER FIVE: DISCUSSION

This research study consisted of four research questions created to analyze current educators' mindsets and efficacy perspectives towards each other. In addition, this study aimed to analyze these variables to help close a gap within the literature surrounding school leaders and teachers. As seen in Figure 1, this study's data created four variables: SLLE, TLE, SLMT, and TMT. Chapter 5 will seek to interpret the findings and discuss the implications reported in Chapter 4. Finally, the chapter will conclude with suggestions for future research and a summary of this study.

Research Questions

1. What levels of efficacy do educators perceive for their school's leadership?
 - a. What levels of self-efficacy do school leaders perceive for their leadership?
 - b. What levels of efficacy do teachers perceive for school leadership?
2. What mindset do educators hold about teachers' abilities and talents?
 - a. Do school leaders hold a fixed or growth mindset toward/regarding teachers' abilities and talents?
 - b. Do teachers hold a fixed or growth mindset toward/regarding fellow teachers' abilities and talents?
3. Have educators' perceptions changed over time?
 - a. Is there a significant difference between today's school leaders'

perceptions of efficacy (self-efficacy and collective efficacy) and school leaders of 2008?

- b. Is there a significant difference between today's teachers' perceptions of mindset toward teachers' talent and ability (fixed or growth) and teachers of 2013?
4. Is there any correlation between educators' perceptions of mindset and efficacy?
 - a. Is there any correlation between school leaders' perceptions of self-efficacy and teachers' abilities and talents?
 - b. Is there any correlation between teachers' perceptions of self-efficacy and teachers' abilities and talents?

Literature shows the importance of efficacy and mindset among individuals. Within education, these concepts have the potential to impact school and classroom culture along with the individualized impact on the next generation. An educators' belief that their actions can change someone's intelligence, ability, and talent is essential for everyone to excel in the educational system.

Many researchers have studied the impact of a growth mindset and self-efficacy amongst teachers and school leaders on students (Allinder, 1994; Auten, 2014; Dweck, 2012; Dweck & Leggett, 1988; Gibson & Dembo, 1984; Guskey, 1988; Heslin & Keating, 2013; Stein & Wang, 1988; Thoonen et al., 2011; Yeager & Dweck, 2012); however, there is little investigation into educators' beliefs toward fellow educators (Calik et al., 2012; Fisher, 2018; Leithwood & Jantzi, 2008; Ross, 1994). This study focused on this gap in the literature. Concepts of growth mindset and self-efficacy have been researched in isolation; therefore, this study sought to compare these educators'

beliefs to current and past educators while checking for correlations between beliefs.

Summary of Findings

What levels of efficacy do educators possess for their school?

Research question 1 for this study pertained to educator perspectives of school leader efficacy, which is the belief that school leadership can make a difference. The first nine questions within the survey adapted from Leithwood and Jantzi's (2008) study created the variables of school leader perceptions of leader efficacy (SLLE) and teacher perceptions of leader efficacy (TLE), as seen in Figure 1. Nine school leaders contributed to the SLLE variable, and forty-four teachers created the variable of TLE.

In Leithwood and Jantzi's (2008) study, a score of 3.0 or below represented a low level of efficacy, 4.0 or above represented a high level of efficacy, and scores between 3.0 and 4.0 were unclassified. Table 5 reveals that school leaders hold a high level of efficacy toward their ability to make a difference. Teacher perspectives were unclassifiable as high or low; therefore, concluding that teachers do not perceive the same beliefs in leadership's ability to impact change.

As noted in Table 6, school leaders reported high efficacy in each posed category within the survey. However, teachers only held high efficacy in two categories of leadership: believing leaders can create positive learning environments and leaders having knowledge and skill to improve student learning. All other teachers' perspectives of efficacy were unclassifiable.

There are a few differences within the school leaders' demographic data. In Table 12, individuals holding a doctoral degree scored 0.72 higher in efficacy than individuals who held master's degrees. School leaders who wanted to gain a promotion were slightly

more efficacious than other categories. Notably, no school leader wished to leave education. All categories within the demographic analysis of school leaders yielded high levels of efficacy except the one candidate with only 6-10 years of experience. Overall, school leaders believe that they can make a difference through their actions.

From Table 12, there are a few interesting differences within the analysis of demographic data of the teachers' efficacy perspectives of school leaders.

- Teachers who held a specialist degree were the only sub-category to hold a low level of efficacy (score below 3.00) for their school leadership.
- Only individuals working in education for 11-15 years held a high level of efficacy for school leaders.
- Ethnicities of Hispanic and Pacific Islander held high efficacy perspectives, while individuals who identified as Black/African American and Other revealed a low level of efficacy for leadership.
- The other demographic data among teachers that yielded high efficacy were the future goal categories of those who hoped to remain in their current position, gain a promotion, and leave the educational field. All other demographic categories amongst teachers yielded an unclassifiable level of efficacy.

Table 12*Demographic Breakdown of SLLE, SLMT, TLE, and TMT*

Characteristic	School Leaders			Teachers		
	n	LE	MT	n	LE	MT
Gender						
Male	1	4.70	4.57	14	3.91	4.71
Female	8	4.80	4.96	30	3.70	4.52
Ethnicity						
Asian	-	-	-	1	3.70	3.57
Black/African	-	-	-	1	2.30	4.57
Caucasian	8	4.80	4.93	30	3.78	4.59
Hispanic/Latinx	1	4.70	4.86	8	4.14	4.79
Pacific Islander	-	-	-	2	4.00	4.29
Prefer not to answer	-	-	-	1	3.60	5.14
Other	-	-	-	1	1.40	4.00
Birth Year						
After 1980	3	4.37	5.10	18	3.70	4.40
Between 1965- 1980	5	5.06	4.89	19	3.90	4.85
Between 1946-1964	1	4.70	4.57	7	3.56	4.33
Degree						
Bachelor	-	-	-	24	3.83	4.54
Master	7	4.63	4.86	15	3.87	4.72
Specialist	-	-	-	2	2.95	4.43
Doctorate	2	5.35	5.14	3	3.30	4.38
Years Employed in Education						
0-5 years	-	-	-	9	3.53	4.14
6-10 years	1	3.50	4.53	8	3.50	4.63
11-15 years	1	5.20	4.57	6	4.38	4.83
16- 20 years	3	5.03	5.10	11	3.78	4.81
21- 25 years	1	4.90	5.43	6	3.95	5.10
26- 30 years	2	4.80	4.71	4	3.55	3.75
31+ years	1	4.80	4.14	-	-	-
Future Goals						
I hope to remain in my current position with my current school.	3	4.67	4.81	23	4.01	4.75
I hope to move to another school, but remain in my current position.	1	4.80	4.14	5	3.42	4.14
I hope to gain a promotion at my current school.	5	4.86	5.14	1	5.00	5.43
I hope to be employed in a different profession.	-	-	-	4	3.63	4.04
I hope to be employed in another field within education.	-	-	-	11	4.34	4.57

Note. Dash indicates elements within the survey that participants did not report.

What mindset do educators have for teachers' ability and talent?

Research question 2 pertained to educator perspectives of teachers' potential for growth in ability and talent. Figure 1 displays the seven questions adapted from Gero's (2013) study relating to perceptions of mindset. Four of the questions scored participants' fixed mindset beliefs and were reverse-scored to yield a growth mindset score for participants. The average of all seven questions created the variables of school leader perceptions of teachers' growth potential in ability and talent (SLMT) and teacher perceptions of teachers' growth potential in ability and talent (TMT). Nine school leaders created the SLMT variable, while forty-four teachers created the TMT variable.

In Gero's (2013) study, questions written to reflect a growth mindset with a score of 3.0 or below represented a fixed mindset, and a score of 4.0 or above represented a growth mindset. On reverse-scored questions, a fixed mindset scored above 4.0, while a growth mindset had a score below 3.0. On all questions, all scores between 3.0 and 4.0 were labeled unclassifiable. Table 5 reveals that school leaders and teachers both hold a growth mindset toward teachers' growth potential in areas of ability and talent. Therefore, school leaders and teachers believe that teachers' abilities and talent are not stagnant but components that can grow and change.

Looking at school leaders' scores for each question reported in Table 7, school leaders reported a growth mindset on all questions except "Some teachers will be ineffective no matter how hard they try to improve." In this question, school leaders reported an unclassifiable mindset. School leaders reported the highest growth mindset responding to two questions: "No matter how much natural ability teachers have, they can always find important ways to improve" and "Teachers can continue to improve their

practice throughout their careers."

When looking into how teachers view each other, teachers held an overall lower growth mindset toward their colleagues' growth potential than school leaders. Teachers scored the highest growth mindset responding to the statement, "No matter how much natural ability teachers have, they can always find important ways to improve." Two statements yielded unclassifiable mindsets: "The kind of teacher someone is, is something very basic about them and cannot be changed very much." and "Some teachers will be ineffective no matter how hard they try to improve."

Table 12 reflects the demographic breakdown of the mindsets of school leaders and teachers toward teachers' growth potential. All school leaders scored growth mindsets in all demographic breakdowns. Teachers scored growth mindsets in all demographic categories except two, Asian and 26-30 years of experience, deemed unclassifiable.

Have educators' perceptions changed over time?

Research question 3a analyzed the change of school leaders' perspectives of efficacy toward self and other educators over time. School leader perceptions of leader efficacy (SLLE) data were obtained by adapting Leithwood and Jantzi's (2008) questionnaire. The two researchers split their school leader responses into two categories of leader perspectives of self-efficacy and collective efficacy. Separating the research variable SLLE into the same two elements allowed the researcher to gauge the change in perspectives over time. Table 8 compares the school leader's self-efficacy and collective efficacy variables. The null hypothesis was rejected due to the significant increase in self-efficacy among school leaders. However, while school leaders' perspectives of collective

efficacy also increased, the change was not significant over time.

In Table 9, teachers' mindset perspectives from this study's TMT variable were compared to Gero's 2013 study. Mindsets in Gero's study were split into growth and fixed mindset; thus, this study's data were split for the analysis. The hypothesis of research question 3b was rejected due to the significant decrease in perceptions of growth mindsets toward teachers' ability and talent. However, it should be noted the post-hoc power was low for sub-variables of TMT as reported in Table 3.

Is there any correlation between the four key variables of school leaders' and teachers' perception of mindset and efficacy?

This study's variables of school leaders' and teachers' perceptions of efficacy and mindset (SLLE, TLE, SLMT, and TMT) were analyzed to determine any correlations between the variables. Therefore, the researcher rejected the null hypothesis due to the significant correlation between the variables of teachers' perspectives of mindset and efficacy (TMT and TLE). Teacher perceptions of leader efficacy can explain 35% of teachers' mindset perceptions of growth in ability and talent among other teachers. Table 9 shows that no other variables were significantly correlated to each other.

Discussions

The data from this study reveals several talking points:

- School leaders feel as though they make a difference, but teachers do not hold the same beliefs that school leaders make a difference.
- No school leaders want to leave the field of education, but thirty-four percent of teachers did.
- Since 2013, there has been a significant decrease in teacher mindset

amongst teachers.

- School leaders' efficacy and mindset did not correlate as did teachers' efficacy and mindset.

Self-efficacy is an essential factor for teacher motivation in enhancing individual learning and practice (Bandura, 1993; Geijsel et al., 2009; Thoonen et al., 2011). This study did not investigate teacher self-efficacy directly, but it investigated school leaders' self-efficacy and teachers' perceptions of leaders' efficacy. Leithwood and Jantzi (2008) stated that efficacy could provide organizational understanding. In this study, school leaders believed they could make a difference in their educational system; however, teachers did not share the same level of belief. Teachers reported a mean score of 1.025 lower than school leaders. This disconnect in efficacy could be attributed to the school leaders' interactions with teachers or even the school leaders' leadership style.

Petridou et al. (2014) revealed that school leader efficacy could influence staff and students. Compared to 2008, school leaders have increased their beliefs about their actions impacting educational outcomes. This study provided insight into efficacy and mindset research by providing new perspectives of school leaders and teachers. There was a disconnect in efficacy beliefs among educators in this study. While school leaders' efficacy beliefs were classifiable as high, teachers were not classifiable. If teachers and students cannot perceive the efficacy levels of the school leaders, can a school leader's actions truly create change?

Teachers within the study held highest beliefs about school leaders' being knowledgeable and responsible for creating positive learning environments, but they held overall lower levels of efficacy. School leaders and teachers both held a growth mindset

towards teachers' ability to develop ability and talent related to teaching. Thus, educators believe teachers can grow their teaching, but they are not all convinced that school leaders' have impactful actions.

Interestingly, the thirty-four percent of teachers wanted to leave the profession, while none of the school leaders reported similar feelings. The lack of teacher belief in school leadership could be a factor causing teachers to seek another profession. After all, teachers know what is expected of them upon accepting a job, but school culture is different at every level of education and every building. School culture is something that is not fully understood until after the school year in full swing. Additional studies may be warranted in this area.

This study contradicted a previous efficacy research conclusion by Thoonen et al. (2011), which stated that years of experience contribute to self-efficacy among teachers. The most efficacious individuals within this study were individuals with 11- 15 years of experience. This could be due to the delay in understanding how educational systems work and the average years of experience needed to become a school leader. Teaching is thought to be a job of passion. When an individual first starts, they are full of passion; however, the term *burnout* exists for a reason. The barriers within education are sometimes too much for teachers. Individuals with 11-15 years of experience understand the reality of their educational system. Those teachers with 11-15 years of experience could serve as a committee to address the barriers that need to be addressed within the school.

Previously, several researchers reported that principals and teachers held a growth mindset (Gero, 2006; Mlakar, 2016; Monistere, 2019; Wagner, 2014). This study yielded

similar results that school leaders and teachers hold growth mindsets toward teachers' ability and talent. Gero (2013) stated growth mindset should be identified and fostered among teachers. However, since 2013, teachers reported a decrease their growth-mindedness that their ability and talent are malleable elements within themselves. While educators are overall still growth-minded, this study suggests that this mindset has not being fostered within educational systems.

Self-efficacy believes that one's actions can impact outcomes, while mindset believes in the capability toward completing an action. These concepts seem very closely related. However, Silbaugh (2016) determined no association between school leader beliefs in efficacy and mindset. Similarly, this study found no correlation of school leader efficacy and mindset. Gero (2013) found an association between teacher beliefs in efficacy and mindset. Similarly, this study found association between mindset and efficacy beliefs among teachers. The lack of association among school leaders raises more questions than answers.

Future Research

One flaw with this research study is the number of participants. The study yielded low participants due to district cooperation and COVID-19 restrictions. There were only nine school leaders and forty-four teachers who completed the study. A more accurate depiction of perceptions held by school leaders and teachers could be obtained by duplicating this study to yield a larger sample.

Additionally, a duplicating study gauging perceptions of school leaders and teachers who work within the same school would be interesting for future research. Dweck (2013) stated that *individuals influence mindsets*. Do school leaders influence

their teachers' mindsets? If the school leaders and teachers are highly efficacious and growth-minded, is there an atmosphere for skill improvement amongst the faculty? Do these concepts of efficacy and mindset create an atmosphere that thrives through learning at all levels?

Upon initial proposal, the element of collective teacher efficacy was woven into the investigation of educators' efficacy and mindset. Hattie (2009) labeled collective teacher efficacy as the number one predictor of student success. Future research could investigate the impact of perceptions of leader efficacy on collective teacher efficacy.

Conclusion

This study sought to determine the efficacy and mindset perceptions of current school leaders and teachers within public high schools. This study highlighted the discrepancy in efficacy and mindset among educators for other educators. The researcher's opinion is that efficacy and mindset are critical entities of motivation for professional growth. School leaders and teachers will always be learners. Educators require growth, just like the students they serve. As with students, the school atmosphere needs to support growth for school leaders and teachers.

Through this study, several points were revealed. Firstly, school leaders feel as though they make a difference, but teachers do not hold the same level of beliefs in leadership's ability to make a difference. Thirty-four percent of teachers within the study wanted to leave the field of education, while no school leader reported the same desire. Over time, there has been a decrease in teacher mindset, the belief that teachers can develop their ability and talent. Lastly, while teachers' perceptions efficacy and mindset correlated, but the school leaders' perceptions did not.

Over the years, efficacy and mindset have been thoroughly researched; however, never in a context surrounding school leaders and teachers. With issues of retention, burnout, and shortages, maybe it is time to consider educators' beliefs as a contributor to educational system atmospheres.

APPENDICES

APPENDIX A

Participant Survey

Thank you for your interest in participating in our research pilot study. The purpose of the study is to examine the perceptions of mindsets and levels of efficacy held by school leaders and teachers. This study will use the following survey to collect data to analyze. This survey will remain open for three weeks. It should take you no more than three minutes to complete this survey. Your participation in this study is your choice. You may skip any questions that make you feel uncomfortable and you are free to withdraw from the study at any time without penalty. There are no foreseeable risks for study participants.

If you experience problems or have questions regarding your rights as a research subject, contact the Florida Atlantic University Division of Research at [REDACTED]. For other questions about the study, you should call the principal investigator: Dr. Valerie Bryan at [REDACTED] or Bonnie Keene at [REDACTED]. By completing and submitting the following survey, you give consent to participate in this study. If you choose, you can print a copy of the consent statement for personal records.

I have read the above description of this research study, and I voluntarily agree to take part in this study.

I do not wish to take part in this study.

Q1 To what extent do you feel your school's leaders are able to...

	Highly incompetent	Incompetent	Mostly incompetent	Mostly competent	Competent	Highly competent
Motivate teachers?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generate enthusiasm for a shared vision of the school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage change in your school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a positive learning environment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitate student learning at your school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raise achievement on standardized tests?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Please indicate the level of which you agree with the following statements.

	Strongly disagree	Disagree	Mostly disagree	Mostly agree	Agree	Strongly agree
My school's leadership team have the knowledge and skill they need to improve student learning?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my school, continuous improvement is viewed by most staff as a necessary part of every job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my school, problems are viewed as issues to be solved, not as barriers to action?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school's leadership team communicate a belief in the capacity of teachers to teach even the most difficult students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Please indicate the level of which you agree with the following statements.

	Strongly disagree	Disagree	Mostly disagree	Mostly agree	Agree	Strongly agree
No matter how much natural ability teachers have, they can always find important ways to improve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The kind of teacher someone is, is something very basic about them and cannot be changed very much.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some teachers don't really benefit from professional learning because they have a natural ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers can continue to improve their practice throughout their careers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers can change the way they teach in the classroom, but they cannot really change their true teaching ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some teachers will be ineffective no matter how hard they try to improve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Every teacher, no matter who they are, can significantly improve their teaching ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 I identify my gender as...

- Male
 - Female
 - Nonbinary
 - Prefer not to say
 - Other
-

Q9 I identify my ethnicity as...

- Asian
 - Black/ African
 - Caucasian
 - Hispanic/ Latinx
 - Native American
 - Pacific Islander
 - Prefer not to answer
 - Other
-

Q11 I was born...

- after 1980.
 - between 1965- 1980.
 - between 1946- 1964.
 - before 1946.
-

Q13 The highest degree I have completed is...

- Bachelor's degree.
 - Master's degree.
 - Specialist degree.
 - Doctoral degree.
-

Q15 I have been employed as an educator for...

- 0- 5 years.
 - 6- 10 years.
 - 11- 15 years.
 - 16- 20 years.
 - 21- 25 years.
 - 26- 30 years.
 - 31+ years.
-

Q17 When thinking about the future,

- I hope to remain at my current position at my current school.
 - I hope to move to another school, but remain at my current position.
 - I hope to gain a promotion within my district.
 - I hope to be employed in a different profession.
 - I hope to be employed in another field within education.
-

Q13 I am employed as...

- a principal, assistant principal, dean, or instructional coach.
- a teacher.

APPENDIX B

Key Terms

1. **Self-Efficacy:** Bandura (1986) stated self-efficacy is thinking that one's self can complete a behavior or task required to produce a desired outcome.
2. **Growth Mindset:** Dweck (2013) explains growth mindset evolved from previous self-theories to become the notion that intelligence, ability and talent are transformable elements, not traits, within individuals.
3. **School Leader perceptions of Leader Efficacy (SLLE):** School leaders' perceptions on their personal and leadership teams' capacities to impact outcomes within their schools.
4. **Teacher perceptions of Leader Efficacy (TLE):** Teachers' perceptions of their leadership teams' capacities to impact outcomes within their schools.
5. **School Leader perceptions of Mindset toward Teachers (SLMT):** School leaders' perceptions of teachers' capacities to grow in teaching ability and talent.
6. **Teacher perceptions of Mindset toward Teachers (TMT):** Teachers' perceptions of other teachers' capacities to grow in teaching ability and talent.

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