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What Common Elementary Practices Impact Teacher Efficacy?

by

Staci Souhan

A dissertation submitted in partial fulfillment of the requirements for
the degree of Doctorate in Education.

Hamline University

Saint Paul, Minnesota

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TABLE OF CONTENTS

CHAPTER ONE	7
Introduction	7
Purpose	7
Efficacy Defined	10
Relevance	11
Existing Research	13
My Research	14
Summary	15
CHAPTER TWO	16
Literature Review	16
Introduction	16
Efficacy is a Judgment	17
The Importance of Efficacy Research	18
History of Efficacy	20
Early Efficacy Research: Big Ideas	21
Continued Evolution of Efficacy Research	23
Impact of Teacher Efficacy	26
Evolution of a Teacher’s Professional Efficacy	28
Achievement and Efficacy	31
Efficacy Critique	33
Critique Specific to Hattie’s Research	34
Trends and Tools in Efficacy Research	35
Future Research and Current Trends	40
Summary	41
CHAPTER THREE	42
Methodology	42
Introduction	42
Research Paradigm	42
Setting and Participants	43
Data Collection	44
My Survey Tool	45
The Focus Group	47
Data Analysis	48
Institutional Research Approval	49

	4
Conclusion	49
CHAPTER FOUR	50
Data Analysis and Results	50
Introduction	50
Survey Results	51
Survey Analysis Procedures and Data	52
Focus Group	69
Most Successful Work Experiences	70
Most Impactful to Students	72
Least Successful Work Experiences	73
Resulting Themes	75
Summary	77
CHAPTER FIVE	78
Conclusion and Findings	78
Introduction	78
Major Learnings	78
Revisiting the Literature	80
Major Findings and Implications	81
Limitations	84
Future Research	85
Communicating the Results	86
Conclusion	86
REFERENCES	88
Appendix A	94
Efficacy and Efficacy Practices Survey	94
Appendix B	97
Focus Group Clarification Protocol	97

LIST OF TABLES

Table 1.	Participant Efficacy	54
Table 2.	Survey Question Three Summary of Responses: Successful Work Experiences	56
Table 3.	Survey Question Four Summary of Responses: Most Able to Impact Student Outcomes	58
Table 4.	Survey Question Five Summary of Responses: Practices That Made You Feel Least Successful	
Table 5.	Results Summary Table: Scaled Ranking Questions - Positive Impacts	61
Table 6.	Results Summary Table: Scaled Ranking Questions - Combined Impacts	64
Table 7.	Results Summary Table: Scaled Ranking Questions - Negative Impacts	68
Table 8.	Synthesized Results Themes	75
Table 9.	Major Learning for Administrators	79
Table 10.	Example of Crossover of Practices	82

TABLE OF FIGURES

Figure 1.	Sample of Bandura's Instrument	36
Figure 2.	Sample of Woolfolk and Hoy's Instrument	37
Figure 3.	Sample of the Teacher's Sense of Efficacy Scale	39
Figure 4.	Survey Question One	53
Figure 5.	Survey Question Two	54
Figure 6.	Survey Question 15	62
Figure 7.	Survey Question 10	62
Figure 8.	Survey Question 14	63
Figure 9.	Survey Question 13	64
Figure 10.	Survey Question Nine	65
Figure 11.	Survey Question Six	66
Figure 12.	Survey Question Seven	67
Figure 13.	Survey Question 11	67
Figure 14.	Survey Question 12	68

CHAPTER ONE

Introduction

Purpose

Efficacy, by my definition, is how able the teacher feels about their practice to impact a student's learning. Teacher efficacy is repeatedly linked to student achievement. The existing body of research states several reasons for the connection (Armor et al., 1976; Guskey, 1981; Klassen et al., 2011). Some of the strongest arguments that align with my thinking are: teachers who have mastery experiences associated with efficacy anticipate that they will also be successful in subsequent endeavors (Bandura, 1997), teachers with high levels of efficacy are more likely to plan more effective lessons and work longer with striving students because they believe they will have positive outcomes (Woolfolk Hoy & Spero, 2005), and teacher and teacher groups with high levels of self and collective efficacy approach new initiatives with a mindset that they will be successful and their learning will impact their students positively (Bandura, 1977; Bandura, 1989; Glos, 2018).

Throughout my 18-year academic career, I have worked in five different and varied school districts. I have experienced districts where teachers believed they were working hard and in my opinion, they were, but the students, based on nationally-normed assessments, were underperforming or just barely performing at the expected levels. In most of these schools, I observed current best practices in place. In one district, I saw best practices mandated excessively but that district had incredibly low teacher efficacy. I was one of the teachers, and as a teacher leader, I heard this from other staff repeatedly. The student performance in that district was below the expected outcomes. Eventually, I

moved to a very high-performing suburban school. The high-performing school had not had, as self-reported by prior leadership, strong instructional leadership. The lack of instructional direction was evidenced by some lagging areas of best practice or largely varied practices but, interestingly, student achievement was well above typically performing peers. What stood out to me was the incredibly high perception of collective and self-efficacy in the school. As an instructional leader, I wanted to maintain that level of efficacy as well as implement consistent best practices and align the staff to ensure continued student achievement. I wondered about how to do both which drove my interest in teacher efficacy research.

As a school administrator, I think my top priority is instructional leadership. When I visit with other administrators we regularly discuss our jobs and often discuss what we see our roles to be. As an active member of the Minnesota Elementary School Principals' Association and a member of their leadership team, this is something we consistently talk about and something I wrote about for their website. Instructional leadership makes sense as a priority as it speaks to increasing student achievement. All of those things again point me toward wanting to know more about teacher efficacy as an educational and building leader. More specifically for me, how can I sustain the level of efficacy in a building if it is already high performing? My biggest fear as a principal would be to harm teacher efficacy or fail to sustain high achievement in a building. If the building is not high achieving, how would I remove the barriers or grow efficacy for the teachers in the environment?

The intent of my research was to develop a useful list of professional practices that contribute to both self-efficacy and collective efficacy in elementary teachers. I was

hoping to find practices within the elementary setting that either help or hinder a teacher's sense of efficacy as well as their current state of efficacy. Are the practices aiding a teacher and allowing the teacher to stay in a cycle of efficacy, or are the practices causing a teacher to feel derailed from feeling able to impact student achievement? My primary research question was: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* As an administrator, I was looking for practical practices to add, remove, improve, or avoid in order to help teachers achieve a successful efficacy cycle. Practical to me means that the list of practices can be applied without obvious barriers which often impede successful implementation. Some examples of barriers, in my experience, have been cost, complicated implementation, ideas that are too abstract or not applicable, or not enough staff or staff interest.

My secondary question, which was driven by the existing research was: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?* If efficacy is in place, how can the building administrator help to contribute to a climate and culture to sustain the efficacious cycle? What would need to be protected or avoided to allow efficacy to be maintained or grow?

My research took place by looking at teachers in a large, high-performing, suburban elementary school that served students in first through fifth grades. The academic achievement of most students in the school was months to years beyond typical performing peers based on nationally normed tests. The teachers self-identified as having high levels of self and collective efficacy. The achievement and efficacy were both still present throughout and post the COVID-19 pandemic. Yes, they were different but still

present. The teachers' efficacy was also still evident in the teachers' confidence. Looking back to early research, Bandura (1977) also agreed that efficacy was more about what the teacher believes than the teacher's actual skill to perform. The research took place in October 2022 using a qualitative survey. The survey first established the teacher's own self-reported perception of efficacy and then collected data on the sources and impacts on efficacy both positively and negatively.

Efficacy Defined

Efficacy, frequently researched due to its correlation to student achievement, has had many definitions. Bandura's (1986) initial definition of self-efficacy embodies most of the definitions and ideas that follow:

People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with the judgments of what one can do with whatever skills one possesses. (p. 391)

Bandura (1989, 1997) later defined self-efficacy as thoughts about the skill to control events that affect one's life. Schunk and Ertmer (2000) defined efficacy as the effect of the positive and negative perceptions we have of ourselves and our skills. The Schunk and Ertmer definition aligns with my thinking as well. Woolfolk Hoy and Spero (2005) defined efficacy as the teacher's judgment about their abilities to promote student learning. Cayci (2011) defined efficacy as evolving from how well the teacher manages their planning judgment when encountering a probable situation. Zee and Koomen (2016) described efficacy as teachers' self-referent judgment regarding their capability as relevant to student outcomes.

Although there are many different definitions, the essence of efficacy is the same across time and research. Efficacy, in summary, is about how able a teacher perceives themselves to be in their practice. It is a personal judgment. If self-efficacy is our individual beliefs regarding reaching our personal goals, it makes sense that collective efficacy is about how able a group of teachers feels in their collective practice. Collective efficacy is about the group being able to execute the necessary actions to effect positive student outcomes (Goddard, 2001). A group seems more powerfully able to affect academic performance across an entire school over time than a single teacher. This is supported by recent research done by Fisher et al. (2020) regarding professional learning communities and efficacy.

Relevance

As an administrator, I was always interested in ways to support staff that would positively impact student achievement. At some point during my search to improve my own practice, I was exposed to Hattie's (2009) *Visible Learning* research. I was drawn to his research because it was a meta-analysis. A meta-analysis was meaningful to me because it combined the research outcomes as a simplified summary of other studies. It removed some of the personal biases that could impact research. There are critiques of meta-analysis as well. Meta-analysis has been assessed to oversimplify the data and undervalue certain aspects. Wheatley (2005) found Hattie's analysis to be overly narrowed as it reduced the data to one number. Wheatley felt Hattie would have benefited from adding the input of statisticians to his team. I did not disagree with Wheatley, however, when I reviewed *Visible Learning* (Hattie, 2009) since all the data was calculated with the same method, I still found value in comparing the different topics

analyzed as all things were held equal to one another within the study. If one believed that the data was oversimplified, as Wheatley did, it was all equally oversimplified so the comparisons could still be of value. Of all those topics, efficacy still rose to the top as having a clear impact on student achievement.

As I looked at Hattie's (2009) effective scales I noticed that collective teacher efficacy had one of the top two scores. I started to hear other educational leaders and professional development alluding to efficacy but no one, with boots on the ground practicing as an education leader, was specific on how to achieve efficacy or had a solid definition of it. The more I read about efficacy, the more it made sense to me and aligned with my thinking. I wanted to do what I could to initiate efficacy at the building level. As an administrator, I wanted to figure out how to ensure my initiatives and practices were helping to improve the teachers' perceived abilities to impact student learning as directly as possible. And, if a teacher or collective staff were already feeling capable of impacting student learning with their current practices, how could I avoid interrupting their confidence and their existing belief in their abilities yet still initiate change as needed? It was not easy. The existing research was meant to measure if a teacher had efficacy and did not include a tangible list of how to help or not hinder the efficacy process. The existing research was not available on a practical, and applicable level for implementation as a building administrator. There were multiple tools created by Bandura (1977, 1997), Gibson and Dembo (1983), and the most widely successful tool created by Tschannen-Moran and Woolfolk Hoy (2007) to measure the existence of efficacy. But, I wanted to know how to initiate and support efficacy, not just measure if it existed.

I wanted my research to fill this gap in the current research. The relevance to the field of education would be to accumulate a working and practical list of practices. This working and practical list, implemented in elementary settings, and not limited by obvious barriers, contributes to building and sustaining a teacher's belief in their ability to improve student outcomes. I wanted to create a list of practices that contribute to, hinder and help, efficacy which led to my research question: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* I was also interested in looking for: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?*

Existing Research

Bandura (1997) is credited with identifying the major sources of efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional states. These categories were broad and did not capture the teachers' opinions as to the impact or relevance. My research findings did fit into these broad categories but go more in-depth into the building-level-specific practices.

Existing research also indicated there was a cycle of motivational reinforcement that could occur and influence improved or sustained efficacy. As new behaviors form they tend to contribute to efficacy and an efficacy cycle (Tschannen-Moran & McMaster, 2009). Tschannen-Moran and McMaster felt that the experience of the cycle was so powerful, positively or negatively, that it would take a major or jarring experience to reset the cycle of experience. Again, cycles were discussed as effective or harmful but I did not find existing data on how to initiate or interrupt a cycle. The idea of efficacy cycles was so intriguing to me that I expanded my research and added efficacy cycle research as a

secondary question to fill a gap in the existing literature. An outcome of my research was the efficacy cycle graphic discussed in chapter five.

My Research

I chose to take a grounded theory approach to answer my research questions: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it? What practices can initiate or interrupt a cycle of efficacy, positively or negatively?* I felt that by gathering data from teachers whose survey results show they self-identified with high efficacy, the inductive data analysis would lead me toward the development of a new theory. I wanted to create a list of practices that affect teacher efficacy. The new theory would add to the existing body of knowledge filling in some specific research gaps and providing a boots-on-the-ground, usable list of practices for administrators to implement, support, or avoid if they want to build efficacy in teachers and a collective staff.

My perspectives may influence my research. I am a middle-aged woman of more than one race. My ethnicity includes Indigenous and European bloodlines but my culture is a confusing mix of spending some weekend time on a reservation as a child and also being raised with white privilege which makes little sense to most folks who have not experienced that conflict and guilt. I was raised with an intense work ethic from my father and an intrinsic passion for education and a love of learning that brought me to Hamline and a terminal degree. I often questioned my own efficacy as an educator and still do as an educational leader which has encouraged my research on the topic and makes me hopeful for results but I do not feel that I have an anticipated outcome in mind.

Summary

I define efficacy as a judgment, a powerful belief about how able the teacher feels to impact student learning. Districts, families, communities, students, and teachers all care about student achievement, and efficacy is repeatedly linked to student achievement. To affect efficacy as an administrator I needed a list of practices that I could implement to increase individual and collective efficacy. The practices that affect elementary teacher efficacy were my primary research focus and the secondary focus was what practices could initiate or interrupt a cycle of efficacy.

In chapter two, I examined the existing literature which supported the need for further research in the field. My research turned the efficacy discussion from measuring if efficacy is present to what practices caused and supported the efficacy or interrupted efficacy.

In chapter three, I discussed, in-depth, the qualitative, grounded-theory approach I used to collect and analyze data. The data is analyzed in chapter four.

Chapter five discussed my findings and how the practices identified by the teachers fall into Bandura's (1997) larger categories of sources of efficacy as well as some new sources.

More than anything, I wanted my research to be practical and useful to expand the body of knowledge and day-to-day administrative work. I think as you review my work you will find that I accomplished those two tasks.

CHAPTER TWO

Literature Review

Introduction

The existing body of literature supported the need for further research specific to my research question: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and factors that impact it?* and *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?* I define efficacy as the confidence/belief (or other?) a teacher has in their ability to impact student learning. Efficacy, in short, is a judgment. You will read about other researchers' definitions in this chapter.

There were existing overall themes of what causes efficacy but I could not find a specific-actionable list for how to sustain or grow efficacy at a building level for teachers. I also could not find specific information on how to avoid disrupting an existing cycle of efficacy. My research addressed these needs. My methodology took a grounded theory approach to produce a new theory about the current professional practices that affect both self-efficacy and collective efficacy. The literature also suggested that efficacy occurs in cycles. Some further research is needed in this area; specifically, there was a need for further research into what might start a successful cycle of efficacy or disrupt a cycle of efficacy.

In chapter two, you will read about the many definitions of efficacy, efficacy's impact on student achievement, the current understanding of broad areas or experiences that support efficacy, as well as some areas where more research was needed.

Efficacy is a Judgment

Efficacy, frequently researched due to its correlation to student achievement, has had many definitions. Building from Bandura's (1986) initial definition shared of self-efficacy shared in chapter one, it is most important to remember that efficacy is not about a teacher's skill set but rather about their belief in their skills to impact an outcome based on what they choose to do and how they perform. Efficacy is a judgment and a choice according to Bandura. You may notice that Bandura's definition had a strong influence on the development of my own definition: Efficacy is about how able the teacher feels in their practice to impact a student's learning. Efficacy is not necessarily the same thing as confidence and the two could be confused. Efficacy is not outwardly visible like confidence and that is why the teacher is asked to self-report their efficacy level. They two can co-exist but one does not ensure the existence of the other. Bandura (1989, 1997) later defined self-efficacy as thoughts about the skill to control events that affect one's life.

Schunk and Ertmer (2000) defined efficacy as the effect of the positive and negative perceptions we have of ourselves and our skills. I align with the Schunk and Ertmer definition because it clearly identifies efficacy as a judgment, not a proven skill. Understanding that efficacy is a belief in capability is key to the research. I think how you perceive or what you believe about yourself and your ability to perform successfully directly affects how you feel about yourself and the likelihood of your success. Woolfolk Hoy and Spero's (2005) definition of efficacy as the teacher's judgment about their abilities to promote student learning supports Schunk and Ertmer. This was also supported by the fairly recent definition from Zee and Koomen (2016); they described

efficacy as teachers' self-referent judgment regarding their capability as relevant to student outcomes.

Cayci (2011) expanded on those definitions and believed efficacy grew from how well the teacher managed when encountering a probable situation. Cayci's definition is more limited than my own and some other researchers. Cayci was referring to the application in a situation and planning, but it was still based on judgment.

Although there are many different definitions, the essence of efficacy is the same across time and research. Efficacy, in summary, is about how able a teacher feels in their practice. Collective efficacy is about how able a group of teachers feels in their collective practice. Several researchers (Fisher et al., 2020; Hattie, 2009) support the idea that a group seems more powerfully able to affect academic performance in a school over time than a single teacher. In my professional experience, I also have found this to be the case. Self-efficacy does support and precede collective efficacy.

The Importance of Efficacy Research

Educators have always been accountable for student outcomes. However, over time the way student success was measured changed. In turn, when student success measures changed, then the way a teacher's success was measured also changed. Since the No Child Left Behind Act (2001), teachers have been held accountable for student learning based on state assessment performance. The idea that teachers make a difference in student achievement is not new. What has shifted is the control of who decides how achievement is determined and valued. What used to be determined on a local level and local indicators is now based on top-down national-normed assessments that matter because they are linked to funding. Attempting to link teacher performance to student

performance can be attributed to Guskey's (1981) research measuring teachers' contributions to student achievement focused on the teacher's beliefs about what caused student achievement. Going further back, Armor et al. (1976) also studied the extent to which teachers' believed they had the skills to impact student achievement levels. With the federal government's continuation of valuing high-stakes testing as the measure of school performance, student achievement on assessments continues to matter.

The newly enacted Every Student Succeeds Act (2021), continued the cycle of measuring student and teacher performance via standardized tests. Klassen et al. (2011) attributed the non-stop research into teacher efficacy to the Rand study by Armor et al. (1976) linking efficacy to student achievement and shared the expectation for the research to continue. The Rand Corporation is a research organization that mostly focused on public policy challenges. One of the Rand mid-1970s studies by Armor et al. (1976) included two questions pertaining to teachers' beliefs about their ability to affect student outcomes which increased interest in efficacy.

Although researchers have stated the need for studies into the sources of efficacy (Goddard, Hoy, & Woolfolk Hoy, 2004; Tschannen-Moran & Woolfolk Hoy, 2007), not much research has been done on the specific practices that contribute to efficacy. Wang et al. (2017) found that Bandura's four sources of efficacy were valid but insufficient to explain the highest teacher efficacy. Bandura's sources were also broad.

My research considered the collective teachers' beliefs in their collective abilities to impact student achievement which Hattie's (2009) meta-analyses were found to have a considerable impact on student achievement.

The overall thrust of efficacy research is to find the sources of efficacy (Lee & Bobko, 1994) and why and how they may mediate a change in teacher behavior by identifying the origins, supports, and enemies of efficacy (Woolfolk Hoy & Spero, 2005). Yet, there was not a concise list of sources or practices of efficacy as identified by practicing teachers who scored themselves as having a high sense of efficacy. My research intention was to fill the gap left by the prior literature.

History of Efficacy

A teacher's ability to control their environment and outcomes was first discussed by Rotter (1966). Rotter drew on a locus of control theory. Rotter looked more at the generalized expectancy that individuals develop in relation to their experiences in an environment. He wondered if outcomes were based on luck, fate, or a result of one's own actions. Rotter felt if teachers believed their potential outcome was based on prior outcomes then those experiences would affect their future effort and successes or failures. If successful, the individuals were then more likely to repeat the successful behaviors, and efficacy was born.

Efficacy research extends well back to the late 1960s and 1970s. Bandura may have been first. Bandura (1977) developed the social learning theory as early as the 1960s. As Bandura's theory evolved into the social cognitive theory, he is well known for, he added the construct for self-efficacy. Bandura referred to the link between teacher beliefs and student achievement, self-efficacy, as a proven force in learning. Then another early mention of efficacy can be attributed to a study performed by the RAND Corporation. The Rand research performed by Armor et al. (1976) found teacher efficacy,

the teacher's confidence in their own ability to promote student learning, to be one of the few teacher characteristics that had an effect on student achievement.

The history of efficacy affecting student achievement was still valued as one of the highest factors as shown by Hattie's (2009) meta-analysis. Efficacy as educationally influential has not only stood the test of time but possibly increased with the high values placed on student achievement due to standardized testing.

Early Efficacy Research: Big Ideas

The original RAND Study (Armor et al., 1976) used Rotter's (1966) locus of control theory to develop two main questions to assess the teacher's beliefs in their abilities to cause positive change for students that would surpass the environmental effects, which Rotter valued. The researchers in the RAND study wanted to measure the effectiveness of a reading program in Los Angeles' minority schools. Armor et al. (1976) used both of Rotter's two questions that indicated teacher efficacy. The two items were:

- The teacher cannot do much because most of the student's motivation and performance depends on their home environment
- If a teacher truly tries hard, they can get through to even the most unmotivated or difficult students

The ideas considered where control comes from are known as attribution beliefs.

Building on Rotter's (1966) theory was Bandura (1977, 1986) who argued that behavior is not only affected by the expectancy to control outcomes but also by the individual's personal beliefs that they will be successful. Bandura (1977) shared that self-efficacy beliefs were the most important driver of behavior, as applied to educational purposes. Bandura thus removed the perceived environmental influence referred to by

Rotter (1996). Rotter (1996), Weiner (1979), and Bandura (1977, 1986) all researched human behaviors and discussed motivation. Rotter's social learning theory was similar to Weiner's attribution theory in explaining how people choose their outcomes. They believed that human behaviors are learned and can change with less emphasis on what people think, believe, or feel about their performance than Bandura.

Weiner (1979) was the next researcher to focus on attributional theory. He researched motivation for classroom experiences. Weiner saw connections between teacher performance and emotions. More specifically, Weiner thought that success was attributed to ability, effort, task difficulty, and luck according to Alrefaei (2015). Weiner (1979) theorized that there was a connection between the teachers' locus of control, stability, and controllability which is in line with other theorists, specifically Rotter (1966).

Bandura (1977, 1986) continued building on Rotter's (1966) theory as well, Bandura argued that behavior is not only affected by the expectancy to control outcomes but also by the individual's personal beliefs that they will be successful. Bandura (1977) shared that self-efficacy beliefs were the most important driver of behavior. Bandura (1977) disregarded the perceived environmental influence as important. Rotter, Weiner (1979), and Bandura (1977, 1986) all researched human behaviors and discussed motivation. Rotter's (1966) social learning theory was similar to Weiner's (1979) attribution theory in explaining how people choose their outcomes. They believed that human behaviors are learned and can change with less emphasis on what people think, believe, or feel about their performance than Bandura (1977).

The researchers may have valued differing sources as impactful on efficacy but they agreed on the effect of efficacy. That is why the research continued and evolved. As you will see in the next section, the questions to measure the presence of efficacy evolved as well.

Continued Evolution of Efficacy Research

Gibson and Dembo (1984) went back and expanded on the RAND two-item scale and developed a 30-item scale that stayed consistent with the Armor et al. (1976) items which looked at the teachers' beliefs and turned to Bandura's (1989) cognitive social learning theory to explain their findings. The scale was also later reduced to a shorter form to adjust for some inconsistencies.

Bandura (1989) eventually shared his later research on human agency in social cognitive theory. His research discussed the self-regulated and self-reflective processes and their relation to determinism even with unmotivated students. Bandura (1989) shared, "Among the mechanisms of personal agency, none is more central or pervasive than people's belief about their capabilities to exercise control over events that affect their lives" (p. 1175). Thus, the considerations for the effect of teacher efficacy were examined in a growing body of theoretical work (Zee & Koomen, 2016).

Bandura (1977, 1997) emphasized the human factors in all behaviors and determined four broad sources of efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion. He explained mastery experiences as the most powerful source of efficacy reinforcement. If a teacher's perceived experience is a positive outcome they are likely to believe they will have positive outcomes in the future if the practice is repeated. Efficacy then increases.

Conversely, if the perception is that the teacher's performance was a failure, efficacy is reduced. Both the positive and negative effects are increased if the teacher feels internal control over the experience. Bandura's (1977) other sources of efficacy suggested:

- Physiological and emotional states are how someone responds to stress or lack of well-being.
- Vicarious experiences are those experienced through someone else modeling the performance. The effect of this method depends on if the observer identifies closely with the model.
- Social persuasion is dependent on feedback from a peer or administrator. It can also be influenced by social media, media, community voice and perspective, or teacher conversation regarding the ability of teachers to influence students. The particular effect of social persuasion may not be long-lived but it could initiate a new strategy or task or cause a teacher to try harder toward perceived success.

As Bandura (1997) continued researching efficacy, he developed beliefs that regulate behavioral change in people. Bandura identified four processes: cognitive, motivational, affective, and selective processes.

- The cognitive process is when someone considers their actions. Those with high levels of efficacy generally set goals for themselves and commit to working toward the achievement of the goal.
- The motivational process involves self-motivation by anticipating a positive outcome and working to avoid a negative outcome.

- The affective process is based on how a person reacts to emotional states, such as anxiety. The effect depends on if they are able to work through the situation to a positive outcome
- The selective process is the judgment used to select the activities and environment in which to be involved.

In all the processes, the more the individual perceives positive outcomes based on items within their control, the more their efficacy grows. It can have an adverse effect if a person perceives the outcomes were not desirable.

Based on my professional experience as an administrator, it makes sense to me that efficacy can affect teachers in two ways. One, efficacy can enhance or impede motivation in teachers and their willingness to try new initiatives. Two efficacy can also impact the teacher's expectations for themselves and their own achievement.

Woolfolk Hoy and Spero's (2005) research supported my beliefs; they found that teachers with higher levels of efficacy were more effective in planning their lessons, were better organized, and exhibited a more enthusiastic approach to their job. In their research, these authors reported two major conclusions. One, the teachers with high levels of efficacy were more likely to try new techniques or initiatives to meet the needs of their students and would try harder for longer, even if there were perceived barriers or obstacles. Two, higher efficacy also seemed to make teachers more accepting of student errors and willing to work longer and harder with striving learners. These were highly positive takeaways, but not all researchers agree that high levels of efficacy are good for teachers and students.

Hattie (2012) went further to state that efficacy is not what teachers know or do but rather how the teacher thinks about what they know and do. This idea was supported by Woolfolk Hoy and Spero's (2005) definition claiming efficacy was a judgment and had to do more with perception than actual competence.

Glos (2018) found that teachers with a fixed mindset avoided placing themselves in situations where they would not feel successful and if they did perceive a failure they would blame it on something that was outside their control. A fixed mindset could be present in a person with high or low efficacy. DuFour (2002) agreed; he stated that he saw the most success in schools where the teachers felt empowered to achieve mastery for their students. Woolfolk Hoy and Spero (2005) also agreed and called efficacy a "future-oriented judgment that has to do with perceptions of competence rather than the actual level of competence" (p. 344) and that the teacher's efficacy affects the effort teachers invest in their teaching. Therefore, efficacy and the desire to see positive outcomes could potentially limit some teachers from entering into unknown-outcome situations.

Including the history of efficacy is important and helps inform my study because it speaks to the relevance of efficacy over time in education. The importance of efficacy also speaks to the impact on student achievement. Ultimately, in education, nothing lasts long if it does not improve student achievement. Efficacy has stood the test of time.

Impact of Teacher Efficacy

Teachers' beliefs and perceptions are important as they direct actions, behaviors, and decisions inside the classroom (Alrefaei, 2015). However, beliefs are subjective and difficult to measure during the certification process. Teacher efficacy is a powerful

influence and predictor of behavior that ultimately impacts student motivation and experience. For over two decades researchers have found links between efficacy and student achievement (Goddard, Hoy, & Woolfolk Hoy, 2004). Therefore, in my opinion, efficacy's significant impact on student achievement should be considered and reviewed.

Goddard, Hoy, and Woolfolk Hoy (2004) went on to break efficacy into three categories: student self-efficacy, teacher self-efficacy, and collective teacher efficacy. For the purposes of this study, this review of the literature is focused on teacher self-efficacy and collective teacher efficacy.

A teacher's sense of self-efficacy is related to student achievement and student motivation (Woolfolk Hoy & Spero, 2005), and efficacy affects the efforts invested in teaching. Lee and Bobko (1994) found efficacy to be an important indicator of work performance as well. Without efficacy, teachers may not undertake tasks that could be challenging (Tschannedn-Moran, & McMaster, 2009). Self-efficacy for teachers is important because it seems to support many of the practices that are present in classrooms where student achievement is evident, such as dedication to striving learners, careful lesson planning that is time-consuming, and setting high expectations for students while also ensuring students believe in their own abilities to achieve. The research has found some factors in what attributes to or could be sources of efficacy.

Efficacy, in summary, impacts how teachers approach their professional practices and building or district initiatives. These attitudes and beliefs impact the approach a teacher takes and their stamina to persevere in situations. This was important to me as an administrator which is why I am looking for teacher-identified practices that positively impact teacher and collective efficacy. I also wanted to fill a gap in the research.

Evolution of a Teacher's Professional Efficacy

Teacher efficacy seems to change over the tenure of a teacher's career and is likely influenced or based on the environment in which they work. There are cycles of motivational reinforcement that occur where behavior influences efficacy, leading to new behaviors forming that tend to contribute to efficacy and an efficacy cycle is established (Tschannen-Moran & McMaster, 2009). Tschannen-Moran and McMaster felt that the experience of the cycle was so powerful, positive or negative, that it would take a major or jarring experience to reset the cycle of experience. Those experiences may fall into one of Bandura's (1997) major sources of efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional states. The purpose of this study was to identify the specific incidents that take place at a building level and are within the range of control of the administrator, not the overall categories. I believed most of the practices would land in one or more of the overall broad categories as my research data was analyzed. I also wanted to identify any items that hindered efficacy or interrupted an efficacy cycle. It is important to understand the major categorical sources. I briefly define them below with some examples.

Verbal persuasion may take the form of professional development as well as supervisory feedback or words from a colleague or respected peer. Professional development that involves teacher input and follow-up coaching is most effective to grow efficacy (Thornton, Zunino, & Beattie, 2020). Verbal persuasion is most effective if linked to other experiences and sources of efficacy. For example, professional development is also linked to mastery experiences for teachers.

Mastery experiences seemed to be the most effective source of growing efficacy because the experiences felt the most authentic and relatable to the participant. The teacher felt confident about their success in the experience as it happened. Bandura (1997) shared that early mastery experiences for early-year educators are robust and highly beneficial especially if coupled with limited setbacks.

Research also suggested that the use or application of the new knowledge was far more beneficial than just exposure to materials in a sit-and-get session of professional development (Tschannen-Moran & McMaster, 2009). This supports the idea of the cyclical nature of building efficacy. Efficacy is built more quickly in the early years of teaching and then tends to stabilize or even shrink in later years of teaching (Ross, 1994).

Vicarious experiences were important, according to Bandura (1997), because teacher evaluation is subjective and generally rated on a rubric or set of expectations. The vicarious experiences allow a teacher to rate their performance and experiences in relation to another teacher. The success of vicarious experiences is also dependent on how closely the observer believes they are tied to the performer. A music teacher may not benefit from watching a gym teacher but may benefit from watching a classroom teacher and benefit even further from watching another music teacher. If the observer felt the other teacher was successful, the observer may now also feel able to successfully do a similar lesson. Allowing teachers to choose who they observe would be a more effective method to grow efficacy than a forced partnership.

Bandura (1997) also found that the physiological and emotional state of the teacher mattered in how they handled situations that arose. Increased heart rate, sweating, or shaking could determine how a teacher might respond in a situation as they determine

whether the experience is a challenge or a threat. An escalated state may also be caused by interest, excitement, or curiosity about new learning. It was all determined by the person experiencing the emotional state and their perceived relevance. Trying new things in a supportive climate could go further to increase efficacy. As the teacher judges their own competency, they might enter or disrupt a cycle of efficacy.

Results from efficacy and continued cycles of efficacy would be evident as teachers try new teaching techniques. A teacher with higher efficacy would be more willing to take the risks involved in a new initiative as they may feel more capable of a successful outcome. Guskey (1986) theorized that school initiatives fail because school leaders do not consider teacher motivation to participate in professional development so the intended change never occurs. McKinney et al. (1999) found that teachers with lower self-efficacy focused on how the new initiative would affect them. Teachers with mid-level efficacy focused on how the new initiative would affect students. Teachers with a high level of efficacy were positive about the possibility and importance of the new learning.

Gains in efficacy are not necessarily straightforward or evenly incremental. Changes in practice or new learning can cause a dip in efficacy as the new information is processed into a teacher's efficacy cycle. This is where Wheatley's (2005) discussion on self-doubt is pertinent. Wheatley suggested in his critique that it is difficult to get teachers to achieve change if they do not occasionally experience some level of self-doubt. It would also be difficult if the new experience seemed less likely to have a positive or mastery outcome.

In summary, it is clear that efficacy is a living, evolving, and varied state. As a building principal, I wanted to learn how to support the positive evolution of efficacy for any given teacher. I was looking for teacher-identified practices to support the positive evolution and avoid doing harm to any level of efficacy. I also wanted to contribute to the body of research.

Achievement and Efficacy

Hattie's (2009) research was profound in its simplicity to interpretation and was accessible to educational leaders and teachers. You could look at a graphic rather than read an entire article or paper. The interesting difference in Hattie's research is that the research is not his own. For me, that holds value because as a learner and researcher I am often concerned about bias in studies. Hattie's work used the statistical measure of effect size to compare the impact of many influences on students' achievement. Hattie and his team arrived at the effect size by doing a meta-analysis of many other studies to figure out the educational practices with the largest effect on student achievement.

The meta-analysis specific to efficacy was looking at collective teacher efficacy. It was the dissertation work of Eells (2011). Collective teacher efficacy, according to Eells, is the collective belief of teachers in their mutual ability to positively affect student outcomes. Eells looked at 126 relevant studies to reveal an effect size between collective teacher efficacy and student achievement as determined by high-stakes assessments. Eells also considered other variables. The research result was an effect size of $d=1.57$. This is significant as the average effect size of the 126 interventions studied was .40. The research of Thornton et al. (2020) supported the findings. Thornton looked at both

self-efficacy and the staff's beliefs about its collective effectiveness. Collective teacher efficacy is strongly correlated with student achievement.

There are direct connections between efficacy and student achievement, increased student outcomes, and constructive organizational changes according to Thornton et al. (2020). Thornton et al. included both teacher self-efficacy and collective teacher efficacy in their findings based on the large body of research reviewed (Sun & Leithwood, 2015). Based on their review and meta-analysis of six studies, Sun and Leithwood reported an effect size of .61 between achievement and collective teacher efficacy. Goddard et al. (2004) also found strong connections between school-wide achievement and efficacy. Both teacher efficacy and collective teacher efficacy can have impacts on student achievement. Ross and Gray (2006) discussed the replication of positive achievement from teacher efficacy to collective efficacy.

In my study, I did not look further into the connection of efficacy to achievement as that work had been done. Strong support for the link has already been established. Similarly, recent research by Goddard et al. (2004) and Hoy et al. (2002) was indicative that the sources for teacher efficacy and collective teacher efficacy are the same experiences as well. Goddard et al. (2004) went on to connect collective efficacy and group goal attainment in high-performing schools. They also found that collective efficacy could positively affect individual teacher efficacy. In 2012, the research of Chen et al. based their study on how teachers conceive of excellent teaching. Their hope was to enlist a school-wide change in practice through efficacy, or self-reported teaching practices. Ultimately, in my opinion, a school would want and benefit from both

collective and individual efficacy. I looked at sources of efficacy that could pertain to either collective efficacy or self-efficacy as they are similar mechanisms.

Efficacy Critique

Wheatley (2005) stated that efforts to increase efficacy can have negative effects. Wheatley's first flaw with efficacy was that it was often confused with actual teacher effectiveness. Wheatley's explanation included that efficacy beliefs may underestimate, overestimate, or be accurate measures of a teacher's effectiveness and are difficult to assess with any level of certainty. Wheatley felt this was due to most of the efficacy research being based on teachers self-reporting rather than observations or interviews. This was a potential flaw, certainly, as the response is fully subjective. This factor was present in my research, all the findings were based on the teachers' self-reporting. There are limitations to all research; for efficacy, the limitation may be the personal and subjective subject topic. Efficacy is a personal judgment. Efficacy is not necessarily the same thing as confidence and the two could be confused. Confidence is observable and efficacy is not. Efficacy is not visible, it is an internal aspect or internal belief that is difficult to observe. This is why the teacher is asked to self-evaluate. Other researchers, Hattie (2012) and Woolfolk Hoy and Spero (2015) would not disagree that efficacy is based on perceived skill and not what a teacher actually knows or does.

Wheatley also considered the tools and scales used to measure efficacy as underdeveloped or overapplied for how they were designed. Wheatley suggested that the tools could be useful to screen potential teachers as long as the criteria do not become widely known or the results could be faked. Finally, Wheatley questioned how teachers could actually use the findings of the research. He felt that efficacy and confidence could

backfire and be damaging if the teacher's actual effectiveness does not match the efficacy perceived. This is true but the opposite could also apply.

Critique Specific to Hattie's Research

It is important to note that Bergeron and Rivard (2017) discussed and dissected Hattie's (2009) research from the perspective of statisticians and saw problematic findings. They understood that the basic goal of Hattie was to identify some key success factors for education and did not have a problem with the concept. Starting with over 50,000 studies including millions of individuals and an effect size of 135 seemed acceptable and they acknowledged that Hattie did not seem afraid of numbers. The problem Bergeron and Rivard had with Hattie's work was the rigor of the methodology which they identified as being used haphazardly. Specifically, Hattie was accused of miscalculation in his meta-analysis and using inappropriate baseline comparisons. In summary, Bergeron and Rivard disagreed with the decision to reduce the effect to one simple number as it was not sufficient to represent what was really occurring. They would have preferred for Hattie to have consulted a statistician. However, Hattie was not the only researcher to have discussed efficacy and its link to achievement, there were many. It is prudent to consider that the specific "effect" numbers may be in question. The critiquing opinion was relevant to me to clarify some researcher reluctance with Hattie. In my opinion and for my research, Hattie remained relevant in that all his meta-analyses would have followed the same process and that means efficacy was still among the top two factors in student achievement.

Trends and Tools in Efficacy Research

According to Goddard et al. (2004), efficacy came down to “Can I or we orchestrate the thoughts and actions necessary to perform the task?” (p. 3). I think that is a good question to focus on as we switch to a discussion of the trends toward that goal and the tools used to measure the levels of performance. Existing research heavily agrees with the importance of teacher efficacy; there is more controversy over how to conceptualize and measure efficacy (Gibson & Dembo, 1984). Many tools or scales have been used throughout the existing body of efficacy research. Some are highly specific to certain areas of efficacy or used by states or employers as part of the teacher selection process; and others scales are more general, which is the direction I will go as the goal of my research is to find sources of efficacy so it will need to be more open.

The first tool, developed by Bandura (1977, 1997), was a 30-item scale and was divided into separate categorical sections. I have included part of Bandura’s tool in Figure 1 to allow for comparison as we look at a few of the most influential research tools. Note that as you look at the Bandura tool in Figure 1, Bandura used a nine-point ranking scale with five anchor labels to assist in responding. You will also see the first three of his categories: Efficacy to Influence Decision Making, Efficacy to Influence School Resources, and Instructional Self-Efficacy. The categories not shown were: Disciplinary Self-Efficacy, Efficacy to Enlist Parental Involvement, Efficacy to Enlist Community Involvement, and Efficacy to Create a Positive School Climate.

Figure 1*Sample of Bandura's Instrument*

BANDURA'S INSTRUMENT TEACHER SELF-EFFICACY SCALE								
This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinions about each of the statements below by circling the appropriate number. Your answers will be kept strictly confidential and will not be identified by name.								
Efficacy to Influence Decision making								
How much can you influence the decisions that are made in the school?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
How much can you express your views freely on important school matters?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
Efficacy to Influence School Resources								
How much can you do to get the instructional materials and equipment you need?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
Instructional Self-Efficacy								
How much can you do to influence the class sizes in your school?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
How much can you do to get through to the most difficult students?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
How much can you do to promote learning when there is lack of support from the home?								
1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

In 1983, Gibson and Dembo developed a 30-item Teacher Efficacy Scale beginning in a pilot study of 90 teachers. The scale started with 53 items and the research eventually eliminated some of those items (Gibson & Dembo, 1984). Gibson and Dembo believed the final tool clarified ambiguities and assured a proper measure. Later, in 1990,

Gibson and Dembo's scale was refined further by Woolfolk and Hoy (2007) into a 22-item scale. I included the first 10 questions in the Woolfolk and Hoy scale (see Figure 2) for a general comparison with the prior and future tools questions and phrasing. When looking at Figure 2, notice the ranking scale as it is the original six-point ranking scale format also used by Gibson and Dembo (1984). All the ranking scale numbers have anchoring labels listed in the key at the top. The rating scales are varied in the different tools. Bandura (1977) used a nine-point ranking scale and you will see another nine-point scale from Tschannen-Moran and Woolfolk Hoy (2007). A direct comparison is difficult but considering which might be best for future research could be interesting.

Figure 2

Sample of Woolfolk and Hoy's Instrument

Teacher Efficacy ¹	
<p>A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.</p>	
<p>INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.</p>	
<p>KEY: 1=Strongly Agree 2=Moderately Agree 3=Agree slightly more than disagree 4=Disagree slightly more than agree 4=Moderately Disagree 6=Strongly Disagree</p>	
1. When a student does better than usually, many times it is because I exert a little extra effort.	1 2 3 4 5 6
2. The hours in my class have little influence on students compared to the influence of their home environment.	1 2 3 4 5 6
3. The amount a student can learn is primarily related to family background.	1 2 3 4 5 6
4. If students aren't disciplined at home, they aren't likely to accept any discipline.	1 2 3 4 5 6
5. I have enough training to deal with almost any learning problem.	1 2 3 4 5 6
6. When a student is having difficulty with an assignment, I am usually able to adjust it his/her level.	1 2 3 4 5 6
7. When a student gets a better grade than he/she usually gets, it is usually because I found better ways of teaching that student.	1 2 3 4 5 6
8. When I really try, I can get through to most difficult students.	1 2 3 4 5 6
9. A teacher is very limited in what he/she can achieve because a student's home environment large influence on his/her achievement.	1 2 3 4 5 6
10. Teachers are not a very powerful influence on student achievement when all factors are considered.	1 2 3 4 5 6

The final tool to consider is the predominant measurement tool currently used according to Duffin et al. (2012) and aligned with Bandura's 1997 findings, the most promising measure to date, the Teacher's Sense of Efficacy Scale or TSES. The Teacher's Sense of Efficacy Scale was developed by Tschannen-Moran and Woolfolk Hoy in 2007. The measure has 24 questions and a 9-point ranking scale with six anchor labels to assist the teacher. Tschannen-Moran and Woolfolk Hoy also used sub-scales like Bandura (1977,1997). Bandura used six subscales and Tschannen-Moran and Woolfolk Hoy (2007) used three, eight-question sections in their long form but do not break them apart for the teacher to see on the scale: Efficacy for Instructional Strategies, Efficacy for Classroom Management, and Efficacy for Student Engagement. Figure 3 shows an example from the Teacher's Sense of Efficacy Scale of the first 12 questions. Notice in Figure 3 the question above the rating-scale anchors says, "How much can you do," a reminder to the teacher of what the questions are asking them to consider. Also, notice that the subsections are not labeled on the teacher form.

Figure 3

Sample of the Teacher's Sense of Efficacy Scale

Teachers' Sense of Efficacy Scale¹ (long form)	
Teacher Beliefs	How much can you do?
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing Very Little Some Influence Quite A Bit A Great Deal
1. How much can you do to get through to the most difficult students?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
2. How much can you do to help your students think critically?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
3. How much can you do to control disruptive behavior in the classroom?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
4. How much can you do to motivate students who show low interest in school work?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
5. To what extent can you make your expectations clear about student behavior?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
6. How much can you do to get students to believe they can do well in school work?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
7. How well can you respond to difficult questions from your students ?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
8. How well can you establish routines to keep activities running smoothly?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
9. How much can you do to help your students value learning?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
10. How much can you gauge student comprehension of what you have taught?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
11. To what extent can you craft good questions for your students?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
12. How much can you do to foster student creativity?	(1) (2) (3) (4) (5) (6) (7) (8) (9)

Tschannen-Moran and Woolfolk Hoy (2007) also developed a short form for the Teachers' Sense of Efficacy Scale. Interestingly, using the TSES long-form and the TSES short-form have had similar results and both have consistently shown the same three factors that they identified in developing the scale. The three factors were: efficacy for classroom management, efficacy to promote student engagement, and efficacy in using instructional strategies.

The Tschannen-Moran and Woolfolk Hoy (2007) tool was used by Duffin (2012) on pre-service teachers as well to measure their efficacy which was a new use for the tool. The research did not clearly state where the preservice teachers were in their process of becoming a teacher so future research would need to be done to assess the preservice teachers at different times in the process. Bandura (1997) shared that efficacy was most malleable early on for teachers but there is also not much research longitudinally to look at those findings so more research would be needed.

These tools were all important in measuring the presence of efficacy and served similar purposes. They were valuable as efficacy is a judgment and not readily observable in the standard observation process. Efficacy levels must be intentionally sought and measured. The history is important to the current research as it helped measure the impact of efficacy on student achievement. In my study, I did not use these tools specifically. I used only a judgment statement from the teacher to rate their own belief in their current level of efficacy. It was the following questions, on my survey, when answered by a self-identified efficacious teacher that I was analyzing to search for common practices that affect their efficacy beliefs or cycles. The practices identified as most impactful were then discussed further in a focus group for clarification.

Future Research and Current Trends

Future research is needed with preservice and early service teachers around efficacy (Bandura, 1997; Duffin, 2012). Duffin also discussed the need for future studies that would be longitudinal and follow teachers from preservice and far into their tenure to see the impact of the efficacy cycle over a teacher's career. The idea of longitudinal research was interesting to me but is not the focus of this research.

Other suggestions by Duffin (2012) for future research were around the areas of culturally diverse settings for the research. As I reviewed current research there was rarely a mention of culturally specific environments, so I agree with Duffin that it could be an area of interest and new findings. Duffin was the only researcher to mention this component which is worth mentioning in our current environment of culturally responsive teaching and research. Goddard et al. (2004) suggested adding some research regarding obtaining group goals and the relationship between efficacy and collective efficacy. Ross and Gray (2006) spent considerable time discussing the role of administration in building teacher efficacy, especially among principals. I was interested in this research and plan to identify some relational outcomes in my research specific to leadership as they present themselves. It is a particular area of interest. What Ross and Gray did not mention in their findings was the specific "why" to how efficacy and principal behavior correlate so that would be an area of future research as well. Another interesting finding was the research of Goddard (2001) which stated that collective efficacy has been neglected in research.

My research focused on individual and collective efficacy and collecting sources of efficacy that would be applicable by administrators to successfully initiate the cycle of

efficacy in a building as well as how to avoid disrupting successful cycles already in action.

Summary

Efficacy, in summary, is about how able a teacher feels in their practice.

Collective efficacy is about how able a group of teachers feels in their collective practice.

My research focused on finding, first, a list of practices that contribute to efficacy.

Second, my research focused on cycles of efficacy and what might start or interrupt a cycle of efficacy. The existing literature, while vast, considers overall themes but does not address these specific needs for further research.

In chapter three, I discuss the two-part methodology of my research. My study included both a survey and a focus group to identify and clarify the efficacious practices and hindrances.

CHAPTER THREE

Methodology

Introduction

There was a substantial existing body of research related generally to my research topic of teacher efficacy. Most existing research addresses how to measure efficacy. There were also Bandura's (1997) four overarching sources of efficacy. However, there was no available theory to outline the practices specific to my question: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and factors that impact it?* Efficacy, in my definition, is about how able the teacher feels in their practice to impact a student's learning. My secondary research question was: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?*

There were existing overall themes of what causes efficacy but I could not find a specific-actionable list for how to sustain or grow efficacy for teachers. Even more important to me, I could not find ways to avoid interrupting a positive efficacy cycle as an administrator. My research sought to address this need. My methodology took a grounded theory approach to produce a new theory on the current professional practices that affect efficacy. Some further considerations into what might start a successful cycle of efficacy or disrupt a cycle of efficacy were also identified during open and axial coding. My research also addressed this gap in the literature as a secondary question.

Research Paradigm

I chose a grounded theory approach to my research as explained by Creswell (2007). Creswell stated the intent of grounded theory research was to generate a yet

unknown theory that goes beyond a description. A grounded theory approach was applicable for my research because a specific list of professional practices, as identified by practicing teachers, affecting efficacy did not yet exist to explain how efficacy is sustained or grown. The existing literature had broad sources of efficacy but I could not find specific practices gathered from elementary building staff. The existing literature seemed to have a gap in my area of specific interest. I wanted to establish a list of practices in a school setting that support efficacy, not of general themes of human behavior, based on teachers who self-identify as highly efficacious. It was the goal of my research to provide this new framework.

My research question was: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* My secondary research question was: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?* Both of these questions are applicable to a grounded theory approach as they are focused on understanding how individual teachers experience efficacy and what they feel impacts their efficacy process.

For my research to produce adequate data to create a list of effective efficacy practices I needed a setting and participants that would hopefully identify as having high efficacy in their professional practice.

Setting and Participants

The setting for my research was a high-performing suburban elementary school. I chose a high-performing school as a place to collect data based on Hattie's (2009, 2012) Visible Learning Scale identifying efficacy as having one of the top effects on student achievement. I sent the survey to all 57 licensed staff in the building. The educators'

beliefs in their abilities to affect student achievement was evident and high performance was the general expectation. The school's performance data on high-stakes assessments was consistently and undeniably high.

This was important as the first section of my research tool asked the teacher to rate their own efficacy and the collective efficacy of their peers. I used their self-identified scores while doing the open coding of my data to sort the data into categories for further analysis. I sent the survey to all licensed teachers as I wanted a mixture of experience levels. I did not recruit any specific teachers based on any other data as efficacy is self-assigned and was self-rated at the onset of the survey. If teachers did not rate themselves highly, a score on my scale of high or highly able, in self-efficacy, I did not use their list of efficacy-building practices in the same way I used those who rated themselves highly. I did use all data to cross-check for practices that conflicted by appearing in efficacy-building questions as well as questions addressing practices that hinder efficacy making all responses pertinent and useful. Using all the data collected also adds to the validity of my outcomes.

Data Collection

The existing body of research had some established tools for collecting data that were worth discussing as they were imperative in the development of the first section of my survey tool and established the historical use of the measures. The existing tools were discussed in detail in chapter two. I will not be using these tools as my questions and research go beyond measuring efficacy to looking at the why and how of efficacy.

My Survey Tool

My tool was different from the existing tools exemplified as it only had a short section dedicated to the teacher self-assessing their sense of efficacy. My tool, instead, focused on finding the why and how of efficacy (see Appendix A). According to Fink (2017), survey research is appropriate when the information you need should come directly from those you are surveying. In my case, I want to hear directly from the teachers about the work experiences that have affected their practice. I wrote and developed the questions keeping the ease of answering and length of the survey in mind so I could have an adequate response rate. I hoped for 15 returned surveys or at least a 25% response rate. Creswell (2007) suggested a minimum number of 20 subjects for a grounded theory approach. I was open to fewer than 20 responses since my original participant pool was small to begin with. My research was originally introduced by the building principal in a weekly update to the staff stating that she and the district center were aware of and in support of my research and to watch for the email. I sent the consent form in an email which included my link at the bottom to the google form. I sent it twice and the building principal included a reminder in one more of her weekly updates to please participate. It was open for three weeks.

This first section of the tool includes a definition of efficacy and two questions asking the teacher to rank themselves as to how efficacious they believed themselves to be. I used this first section primarily for open coding to sort my subjects into efficacious groups.

The next section of my tool asks open-ended questions to establish a list of practices directly from the subject that affects their efficacy and efficacy cycles. These

questions included items to identify things that either help or hinder efficacy. From this section of questions, after axial coding, I was able to explore the themes and subcategories of practices that influence efficacy and identify strategies that help and hinder efficacy.

The final section of my survey asked the teacher to rank some items, based on Bandura's (1997) sources of efficacy, in order of their impact on the teacher's efficacy. I used this data to cross-examine my analyzed data as a type of discriminant sampling. I wanted to know if the outcomes identified as high matched the existing phenomena to add validity and reliability to my outcomes and to look for data that would conflict with existing research or ideals.

I looked for themes as I did the data analysis. I looked at the teachers who self-identified as having the highest level of efficacy and created a list of what worked to help them achieve that status. I followed the same process with all the other levels of reported efficacy as well. Once I had those lists created, I cross-referenced them for the themes that occur solely when teachers identify in the high to highest efficacious categories. I also looked at any teachers who identified as not having high efficacy to see if the same items appeared on their lists and how often to ensure the data consistently made sense.

Using the open and axial coding analysis I was able to become selective and code some predicted relationships for highly efficacious teachers while cross-checking that data with less efficacious teachers. I intended to create relationships but also to identify outlying data that conflicted with the general outcomes.

Once I had the list of efficacious practices, I wanted to clarify the findings. I invited five teachers to join a focus group.

The Focus Group

The participants in the focus group were from the same school and pool of participants. I did not link their identities to a specific survey nor did I ask or require that they had participated in the survey to participate in the focus group. The focus group protocol can be found in Appendix B. Since the survey response group included 11 completed surveys, I could assume that some of the focus group had and some had not participated and that made the focus group highly meaningful. I could gain more insight than I anticipated during the conversation.

Focus group participants were identified by seat participant numbers based on where they decided to sit upon entering. Participants privately self-identified their efficacy level on a ballot identified only by their seat participant number as they entered. They then identified their efficacy level. I added a spot to the ballot for them to include if they had participated in the survey or not since I thought it might be good to know for the overall results. I started by sharing the definition of efficacy and kept it visible throughout the focus group session. I reviewed the purpose of my study.

I worked with the building principal to select participants whom she expected would self-identify in the high or highest categories of efficacy. Due to the humility of some of the participants, I did not want to limit the group to only those teachers that would self-identify in the high or highest efficacy group. Therefore, participants were also selected to represent a range of teaching experiences and with consideration for who might feel comfortable sharing in a group setting

The focus group then discussed the findings of the survey and added their thinking and clarity to the lists as another method to cross-check the validity.

A focus group was helpful because the survey findings were not conclusive in some areas as expected. I needed to clarify some of the answers. I also was surprised by some of the data and wanted to ask some follow-up questions to ensure I had the correct understanding of the data. A focus group was the best way to do this as I could record body language and facial expressions as well as verbal responses as I looked for themes.

At the conclusion of the focus group, I asked them if their thinking about their level of efficacy had changed at all based on the conversation and if they had anything else they would like to share with me privately regarding the focus group or efficacy.

Data Analysis

Questions one and two asked the participants to identify their efficacy levels. I shared those results in a table and discussed their importance to the survey. Had I not had teachers self-identify as feeling efficacious my survey and research would have stopped here so this was an important step.

To analyze the three open-ended questions, survey questions three through five, I had to first look for themes. Then I looked for subcategories within the themes. I put the data into tables to make it more visual where possible and also described it in the text to summarize the findings. In some cases, more than one table was necessary to clarify the information.

Analyzing survey questions six through 15 required the participants to use a five-point ranking scale. As a result, the first thing I did was put all the questions into a table to visually show how they ranked and discussed the overall data. Then I displayed

the individual results in a chart for each response and gave a written analysis of those specific results.

Institutional Research Approval

Prior to starting research I followed the required protocols and obtained permission from my school district to do research. For my district that entailed submitting forms to the executive committee to review. Once I obtained written permission from my district I included that letter in the consent protocols submitted to Hamline to obtain permission to move forward with my research. Once I received formal approval I was able to start my research using the supplied and dated consent form from Hamline.

Conclusion

I believe that developing my own tool was the only way to get to the different types of data I was looking to collect as I was not looking to measure efficacy. Using a focus group to review the survey findings added clarity, depth of understanding, and quality to the results and outcome of the theory. The setting and participants were appropriate to my methodology and resulted in an adequate number of completed surveys. The survey design allowed me to consider open, axial, and selective coding as expected in a grounded theory study. Most importantly, the results of the data analysis provided a general framework to create a list of practices that can be readily applicable to building administrators to increase and sustain teacher efficacy.

CHAPTER FOUR

Data Analysis and Results

Introduction

My primary research question was: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* And my secondary research question was: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?*

I approached the research from a grounded theory perspective hoping to come up with a list of practices that occur in an elementary school environment that are within an administrator's control to grow a teacher's efficacy. This research extends the existing research by adding a practical list for administrators. The secondary question of practices that can initiate or interrupt an existent cycle of efficacy came from my own interest in wanting to do no harm as well as from the existing research being very limited about efficacy cycles.

I started with a survey and then took the data to a focus group for further explanation, development, and clarification. This methodology proved to be necessary as the survey left me with some questions that needed to be discussed further. Grounded theory experts have highly varied approaches, according to Creswell (2007), but they would all expect that some type of triangulation would be used to ensure the findings are valid and based on open and axial analysis including both my survey data and my focus group data.

This chapter covers the results of the survey and focus group and the analysis of the resulting data from each stage of the research process. The survey data will be

presented visually and described in the text whenever possible. The focus group data will be organized by themes, presented visually if possible, and explained in the text.

Survey Results

The survey was sent to 57 licensed teachers at a high-performing suburban school. That was the total number of licensed teachers in the building including 34 classroom teachers, eight specialists, eight special education teachers, four resource teachers, and one dean. Some of the staff are itinerant or shared staff among other buildings. It was anticipated that the itinerant staff would likely not participate as they are rarely in the building but I wanted to ensure I did not leave anyone out.

The survey was sent out twice between the dates of October 9 and October 28, 2022. There were 11 total respondents. That was a 32% response rate from the 34 classroom teachers which is highly satisfactory. The classroom teachers were the group I most expected to respond and considered as potential respondents. I knew not all the recipients were potential respondents. I ruled out itinerant staff as they are not in the building that often. I also assumed specialist staff would not participate. I did not anticipate that special education teachers would have time to participate due to all the paperwork they already need to complete for due process which I felt reduced the pool further so I was realistic but hopeful. The more realistic number of respondents on the high end was 45 which included the classroom teachers, resource teachers, and possibly special education teachers. If the 11 responses came from that group, that would be a response rate of 22% which is still good. The quality of the responses were also thoughtful which raised my level of satisfaction and gave me more to work with in the

data analysis portion. The survey was broken into three sections so that is how I will present the data.

Survey Analysis Procedures and Data

Section one of the survey had two questions. The questions asked the respondent to rate themselves on a scale of one to five on their own and their combined abilities with peers to impact student learning. See Figure 4 and Figure 5.

Figure 4

Survey Question One

Thinking of your practice (skills and abilities) do you feel able to impact a student's learning?
11 responses

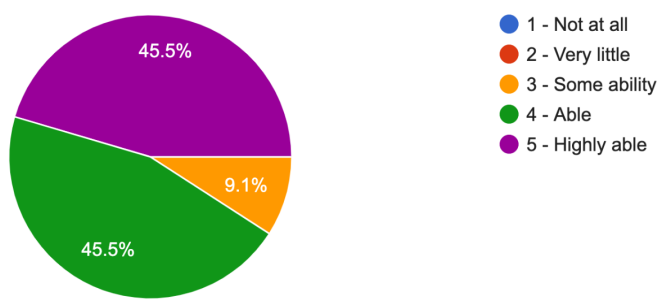
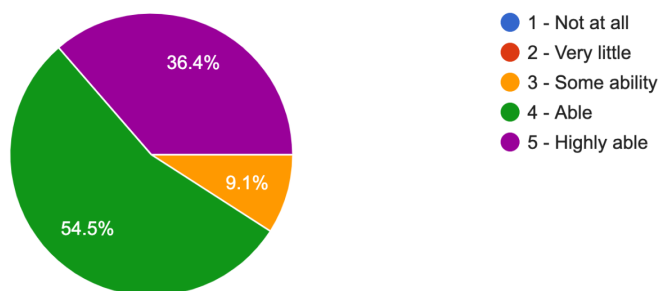


Figure 5*Survey Question Two*

Thinking of your combined efforts with your colleagues (combined skills and abilities) do you feel you are collectively able to impact student achievement?

11 responses



Section one was critical to my research. Figure 4 and 5 illustrate the reason I chose this particular school for my research, high efficacy levels. I had reason to believe based on their high achievement that the teachers may score themselves as having higher efficacy. In addition, I was looking for practices that would build, support, and sustain teacher efficacy, if I had not found enough evidence of efficacy in the respondents I would not have been able to use the survey data. The data is shown in Table 1.

Table 1*Participant Efficacy*

	Able/Highly Able	Some Ability	Very Little/ Not at All Able
Your Efficacy	91.9	9.1	0
Collective Efficacy	91.9	9.1	0

Table 1 illustrates the participants' ratings in both efficacy and collective efficacy. As the ratings were all high I did not feel the need to eliminate any of the resulting

answers. I looked at the participant who scored themselves as having some ability to see if there were any answers that were significantly different that would skew the data and the answers were in line with the other participants. Had there been any scores in the “very little or not at all” able to impact student achievement category that could have been a different scenario entirely. It might have been interesting to see but in this survey, none of the participants rated themselves in those categories.

Section two of the survey had three open-ended questions. The questions were lists or short answer questions that asked the respondents what work experiences throughout their career made them feel the most able, capable, or impactful as an educator. The next question was similar but referred to student outcomes, and the third question asked them to reflect on what experiences had made them feel the least able, capable, or impactful as an educator. I first looked to see if the answers were given by a teacher that rated themselves as a four or five as able or highly able to impact student learning. All of the teachers taking the survey had indicated a self-efficacy level of four or five except one. For these questions, I looked for recurring answers or themes. I also looked for any answers that occurred in either of the first two answers that also occurred in the last answer as otherwise conflicting. I searched for answers that I did not understand or that needed further clarification from the focus group. I also checked the data against the data in section three of the survey to see if the data made sense or needed further clarification. Table 2 displays a summary of the primary responses from survey question three. The survey question was: *What work experiences in your teaching career have made you feel the most successful (able, capable, impactful) in your practice as an educator?* The responses are grouped in one of five columns according to the theme of

the response. The five main themes were: Support or Colleagues, Professional Development, Reflective Practices, Students and Families, and Perspective.

Table 2

Survey Question Three Summary of Responses: Successful Work Experiences

Support/ Colleagues	Professional Development	Reflective Practices	Students/ Families	Perspective
Team Time: Collaboration, planning, creating, reflecting, visiting	Book Study: Reading about a concept and then applying the concept with my students	Time to reflect on teaching practices	Small class sizes	Gaining experience that provides a wider lens - district wide, grade wide, etc
Professional learning communities (PLCs): Dig into resources together, vulnerable trusting conversations, new strategies and ways of teaching	Equity work to become better at understanding, communicating, and planning instruction for historically marginalized students	There have been times when I taught a lesson and was not happy with a part of it, opportunity to adjust and it clears up the issues	Partnering with supportive parents have been key	Access to insights like administrative goals, directives, forward-thinking plans while teaching adds perspective and partnership
Coaches/Mentors: support as needed, mentoring in early years was helpful, learned behavior management that I still use today,	Professional development (PD) on Differentiated Instruction and other content specific PD including data analysis	Equity work to help me understand my own mindset and be reflective	Relationships: making a connection with a student that builds a new level of trust, building in time for social emotional learning (SEL) skills to form community	Perspective gained by seeing other teachers teach, can share with colleagues but it is never as good as seeing it yourself
Administrators: care, support teachers, clear and specific admin feedback during observations on specific areas of strength and growth	Time to attend and then process PD, Time to try PD right away and reflect on how it is going	Recording and rewatching lessons helps to notice things that are going well and things that could use some fine tuning	Students are held to high standards and thrive on structure	Watching other teachers teach and reflecting with each other, try other roles if possible
	PD that immerses you in the training, not just one and done, PD that is done with a partner, PD that you are responsible to then teach to others			Stepping outside your own classroom was by far the most impactful on my teaching in a positive way to learn from others

The importance of the five themes of Table 2 is that these are practices that take place with great regularity in an elementary school setting. These are the things I had to consider in combination with the next two open-ended questions while I tried to answer my research questions. I looked at the next two categories to see if similarities or differences in the themes continued to develop as more data emerged. Of further importance is that some of these themes are things that are within the control of an administrator. An administrator does always have control over some of the items listed under support and professional development. For example, these items may be directives from other areas of the district or be budget controlled. Other items listed there could be topics for an administrator to discuss with the team at their central office but that is still an option as they often work in partnership. Some concerns that came to mind are budget and time.

I followed the same process for survey question four. Survey question four was: *When have you felt the most able to impact student outcomes? What work experiences have helped that successful feeling continue?* Below in Table 3, you will find the most common themes: Support Staff, Students, Vision and Reflection, and Time or Format. These answers were briefer and more personal.

Table 3

Survey Question Four Summary of Responses: Most Able to Impact Student Outcomes

Support Staff	Students	Vision	Time/Format
PLCs are supportive when things are not going as expected	Smaller class size	Being able to have a strong vision for the day	Time to work with colleagues
Having support/resource teachers that can support students	Behavior support in the school that extends beyond me and my classroom	Clear and measurable learning outcome	Time to process and plan after receiving new PD
Follow through by deans, admin, special education staff, and specialists with students	Relationships: Building a relationship with my students, strong classroom community		Time to see other teachers and learn from what they are doing, step outside my classroom
	Connections: knowing my students and their interests and dislikes, etc. allows me to motivate them		Format to teach project based lessons in which students work as a group and learn from each other

The analysis of Table 3 was important in conjunction with Table 2. There were some themes that were repeated in both questions. Both areas had a theme of support and a theme of students. The themes were not the biggest takeaway for me. This is why I felt it was important to share more of the responses. In the responses, you find subcategories within the themes. The responses also reveal the larger overall takeaways beyond the themes.

My most meaningful conclusion from the open-ended responses were that the work experiences having the greatest impact on efficacy are: time, support, relationships, and reflective practices. The exciting part for me as an administrator is that I can control some of these things and those topics are explained in chapters four and five.

Survey question five took a turn as it asked the participants to reflect on practices that have made them feel least successful in their practice as an educator. I again grouped the answers into themes and put them into Table 4. Many of the topics in these themes were not new but presented differently due to the questions. Some of the items were entirely new. There were items that came up here that were also mentioned as positive factors that were brought to the focus group for further clarification.

Table 4

Survey Question Five Summary: Practices That Made You Feel Least Successful

Curriculum Materials	Support	PD/Decisions	Time	Students/ Families
Curriculum launched without proper PD, decision made too late for proper launch	Coaches: Constant shifting of staff or the support positions being removed	Irrelevant PD, PD that is redundant or disconnected	Not enough time - period, adding things without ever removing anything	Large class sizes, class sizes too big to meet individual needs
Curriculum given in August for the coming school year with no time to dig into it	Constantly changing to follow trends before knowing if what we are currently doing is working	Homogeneous classrooms without the understanding of how to teach in the environment	Lack of planning time	Students who roam halls
Curriculum that is not meeting student needs and is no longer best practice	No accountability with other staff, like sped teachers	PD given by colleagues who have no idea what it is like to be in a classroom	Busy work for PLCs	Students do not respect adults
Beg for appropriate curriculum to meet student needs but it still goes unheard	Not feeling valued for what I do	Dist PD being one size fits all when we know this does not work	Goals, obviously teachers want 100% of students to master all concepts	Parental interference
Lack of curriculum or appropriate curriculum	Admin not holding teachers to a high standard of teaching, weak admin	Not allowing or providing time for schools to work across across building sites	Consider time it takes to work through some of the processes versus impact	Behavioral issues in class
Dist Curriculum staff is too far removed from reliability of current classroom		Initiatives started without providing reason or background info to set up the why for all staff	Required classes during first years when very busy and stressed, it is not impactful or helpful	Inequities in learning experiences between building sites

The most significant result to note from Table 4 is that there are some similar themes to the other categories which again speaks to why the theme can not be presented alone without the response. Some of the themes that added to efficacy reappeared in this theme that had a negative impact on efficacy such as time, professional development, and students.

The primary hindrances to efficacy in my research became most evident during the focus group conversation in combination with the other survey questions. The areas of most negative impact on efficacy were two in two areas with some cross-over. The main impacts were curriculum and professional development. The crossover is in the area of time. Things that were thought to be not valuable uses of an educator's time would impact their efficacy or interrupt their efficacy in a negative way.

Section three of the survey consisted of 10 questions asking the participants to rate specific practices on a scale from one to five, one being harmful to efficacy and five as increasing the teacher's sense of efficacy. These questions are presented as captured in the figures below but they will need clarification later. Some of the practices were topics for conversation during the focus group and then discussed in chapter five conclusions. There were a couple of unexpected responses but that was the reason for needing a focus group for clarification.

Table 5

Results Summary Table: Scaled Ranking Questions - Positive Impacts

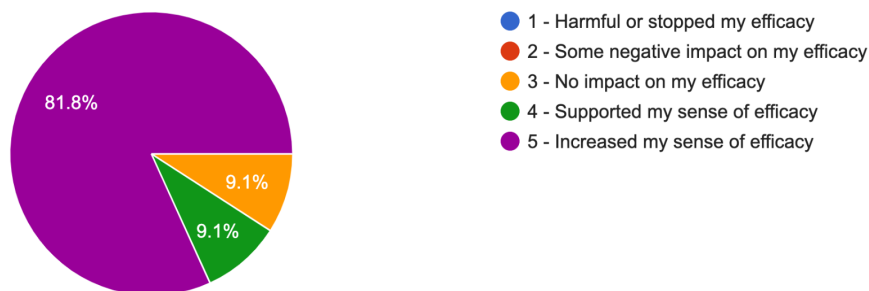
Practice	Increased or Supported the Sense of Efficacy	No Impact on Efficacy	Some Negative or Harmful Impact on Efficacy
Received a public oral or written compliment from a peer or administrator about your practice (Figure 6)	90.9 (81.8 Increased)	9.1	0
Observed a respected peer and recognized potential improvements I could make/transfer in my teaching: (Figure 7)	90.9 (36.4 Increased)	9.1	0
Optional professional development that lets me choose how or when to engage: (Figure 8)	81.9 (45.5 Increased)	18.2	0
Being able to engage in an observation/feedback cycle that I initiate on a topic I select (Figure 9)	72.8 (36.4 Increased)	27.3	0

In this section four questions that are in green Table 5 had highly positive impacts on efficacy. The table allows you to see the breakdown of increased versus supported respondents' efficacy. There may be respondents who felt no impact and that is still considered positive. The important consideration is that there was not a stop or harmful interruption to their feeling of efficacy caused by these common practices. I have included the corresponding individual charts as well so you can also view the data in that format.

Figure 6*Survey Question 15*

Received a public oral or written compliment from a peer or administrator about your practice:

11 responses

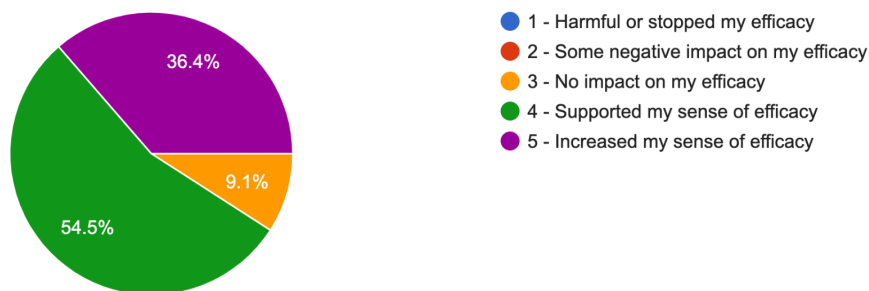


The responses in Figure 6 were important because they were the responses with the highest impact to increase efficacy and are a practice entirely within an administrator's control. Further, this type of practice does not take time or impact the budget.

Figure 7*Survey Question 10*

Observed a respected peer and recognized potential improvements I could make/transfer in my teaching:

11 responses



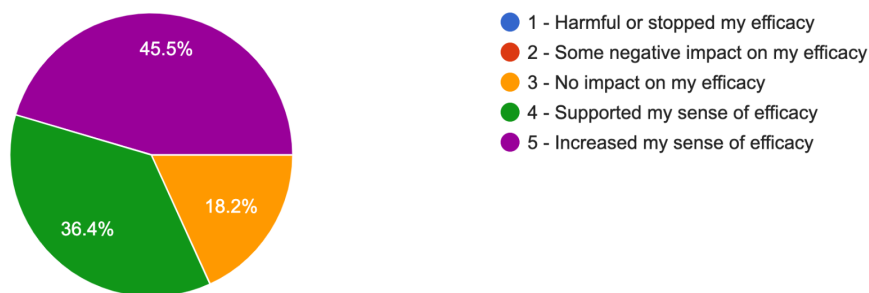
The responses in Figure 7 go back to the literature. Bandura (1977) found four broad factors thought to source efficacy, one of them was vicarious experiences. This supports my outcomes and reinforces how important vicarious experiences can be if the teacher sees something they could replicate or sees something of themselves in the teacher they are observing. This is something in the control of an administrator.

Figure 8

Survey Question 14

Optional professional development that lets me choose how or when to engage:

11 responses



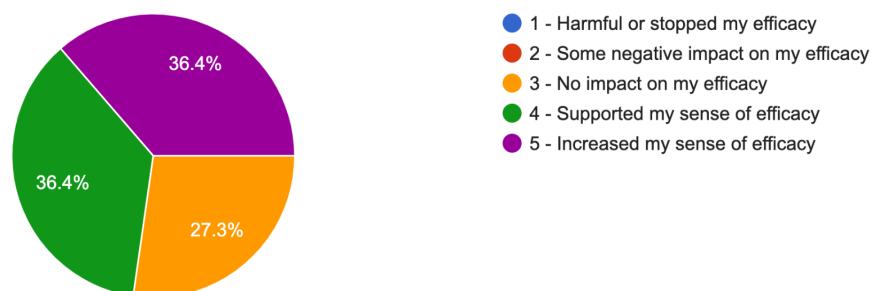
The importance of Figure 8 is in consideration of educator time and reflective practices which are two of the main takeaways. Professional development overall was found to be negative which is explained further after the focus group and chapter 5 but here, when an educator is allowed to choose how and when to engage it can be positive. This is again why the overall themes in each area needed further exploration and a grounded theory was a useful methodology.

Figure 9

Survey Question 13

Being able to engage in an observation/feedback cycle that I initiate on a topic I select:

11 responses



The same argument is applied to this response. The educator needs to be reflective on what they need before engaging in the feedback cycle which is much different than a mandatory observation cycle. Figure 9 responses tell us a self-initiated feedback cycle also honors the educator's time which was already identified to be a key factor for efficacy.

Table 6

Results Summary Table: Scaled Ranking Questions - Combined Impacts

Practice	Increased or Supported the Sense of Efficacy	No Impact on Efficacy	Some Negative or Harmful Impact on Efficacy
Receiving a new curriculum or materials you felt you needed or had a voice in choosing (Figure 10)	72.8 (36.4 Increased)	9.1	18.2
Initiated a new practice or initiative successfully (Figure 11)	72.7 (9.1 Increased)	9.1	18.2
Struggled but eventually figured out a new curriculum as a team (Figure 12)	63.7 (18.2 Increased)	9.1	27.3
Participating in required observation cycles (Figure 13)	36.4 (27.3 Increased)	63.6	0

In Table 6, for this subset of questions the responses were more mid-level and mixed. They are ranked in the table by the responses that had the most positive effect on efficacy but you will notice they also have negative impacts and one had a significant lack of impact as well. I added the increased percentage so you could see the exact impacts but the charts will also be shared below to allow the data to be visualized.

The common theme here for three of the questions was that they involved a new curriculum or initiative. Looking at the main impacts resulting from this research so far, the categories to consider are time and support for the items most in the control of the administrator. The reflective practice piece would also be important but some aspects would be outside the administrator's control. There are also negative impacts at play here. Professional development and curriculum were the main resulting negative impacts on efficacy and one or both are mentioned in these questions and the educators are responding with a negative impact on their efficacy. Even where the educator had a choice.

Figure 10

Survey Question Nine

Receiving a new curriculum or materials you felt you needed or had a voice in choosing:

11 responses

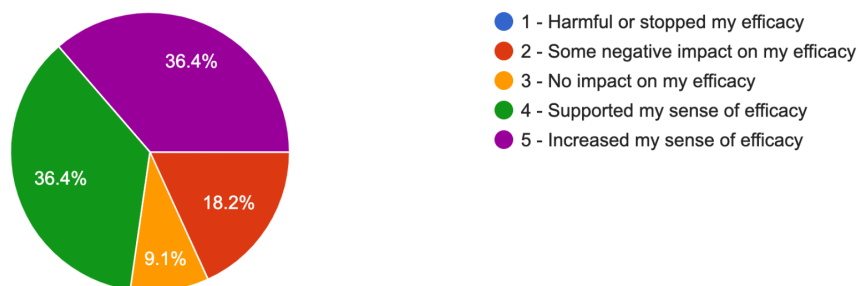


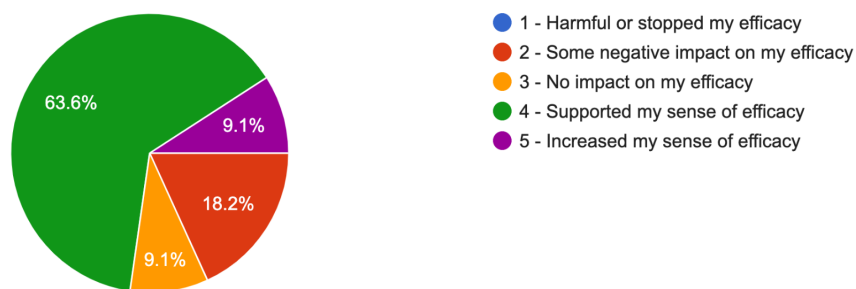
Figure 10 involved a new curriculum where the educator had a voice in choosing and the impact still had a negative impact. Out of the focus group, this came down to mostly a time concern. Everything takes time so the teachers know that to do well in something new their efficacy will suffer somewhere.

Figure 11

Survey Question Six

Initiating a new practice or initiative successfully:

11 responses



The range of responses to question six, Figure 11, goes back to the literature by Woolfolk Hoy and Spero (2005) and my earlier opinion that teachers respond to new practices and initiatives based on their current level of efficacy and experiences. It may not be linear either and in all cases, time and launch considerations have to also be taken into account.

Figure 12

Survey Question Seven

Struggled but eventually figured out a new curriculum as a team:

11 responses

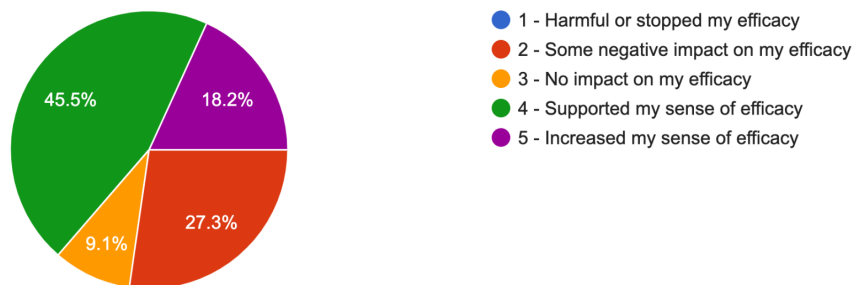


Figure 12 displays the responses when a practice lacks the ability to feel individual mastery and for the reflection that seemed to be needed for success. It may also require more time coordination working as a team than as an individual. As an administrator, I can see why this could be a problematic practice if not properly launched with the correct professional development calendar to give the support and time needed for success.

Figure 13

Survey Question Eleven

Participating in required observation cycles:

11 responses

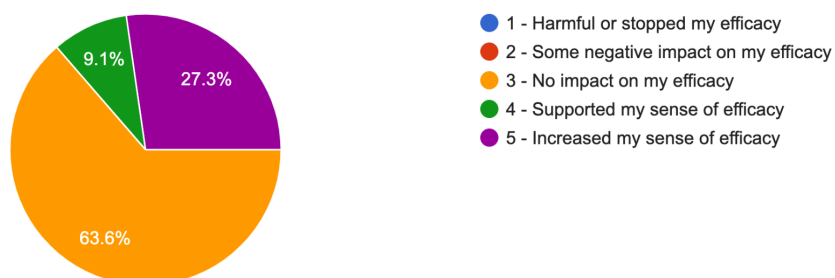


Figure 13 was a mostly neutral question. As an administrator it made me want to reconsider pieces of the practice within my control. The required observation cycles take so much time and teachers are mostly neutral. What can I learn from the overall outcome of this research to make the process more impactful? I would like to let them pick their topic and initiate that part of the process.

Table 7

Results Summary Table: Scaled Ranking Questions - Negative Impacts

Practice	Increased or Supported the Sense of Efficacy	No Impact on Efficacy	Some Negative or Harmful Impact on Efficacy
Receiving a new curriculum or materials that were selected by a building team: (Omitted)	36.4 (0 Increased)	18.2	45.5 (9.1 Harmed)
Teaching a curriculum that does not align with my thinking: (Figure 14)	0	27.3	72.7 (9.1 Harmed)

Table 7 shows the respondents felt the practices had a majority negative or harmful impact on their sense of efficacy. These questions also had the common factor of curriculum as the focus of the question. You will note that I have omitted the top question's results. When this question was discussed in the focus group I realized that there was a misunderstanding of the question. The wording of the question was not clear to the group so they could not answer the question. This is discussed further in the limitations of the research in chapter five.

Figure 14

Survey Question 12

Teaching a curriculum that does not align with my thinking:

11 responses

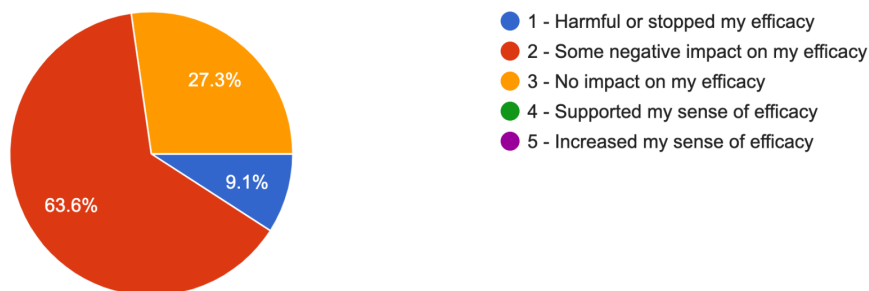


Figure 14 displayed the largest negative response. Based on how educators responded that reflective practices were important to them and that curriculum can have a negative impact on their efficacy the combination of both impacts could be at play in this outcome. These are items that are likely outside a building administrator's reach in most districts but with intention and consideration, the impacts could be lessened potentially.

The survey made me eager to bring the open-ended results to the focus group for development and clarification. I also was interested in asking clarifying questions regarding curriculum from the scaled ranking questions reviewed in the tables. I wanted to ensure that the positive takeaways that had emerged from my open coding were accurate: time, support, relationships, and reflective practices. I also wanted to ensure that my harmful impacts were accurate: professional development and curriculum but that the overall reasons were the timing of the launch and the lack of shared or transparent reasoning for the decision-making. I hoped the group was going to clarify the findings.

Focus Group

The focus group consisted of five female teachers. The teachers varied in experience from three to many years of teaching. The focus group took place for an hour in November before school in one of the teachers' classrooms. The teachers were selected based on their willingness to participate and openly speak in a group setting regarding the topic of efficacy. The teachers were not asked if they had nor were they expected to have participated in the survey in order to participate in the focus group. The focus group protocol can be found in Appendix B.

The focus group was recorded for audio-only. The participants had numbered folders by the seats they randomly selected that I used while recording notes. The teachers privately self-reported their efficacy when they arrived. They also recorded if they had or had not participated in the survey. Two of the focus group participants had participated in the survey and three of the focus group participants had not participated in the survey.

The focus group was intended to clarify findings from the survey. The main focus was the long answer questions three, four, and five. Some of the questions from section three regarding curriculum also fit the discussion and were included.

I incorporated participant feedback in my analysis as it applied to each question or section. I also included a summary at the end of the chapter. I read the open-ended survey answers to the focus group participants and encouraged them to add their thoughts, feelings, opinions, affirmations, or disagreements as they felt comfortable.

Most Successful Work Experiences

The first question asked the participants to consider section two of the survey, question three: *What work experiences throughout your teaching career have made you feel the most successful (able, capable, impactful) in your practice as an educator?* I used the five themes that emerged as a way to sort the data as I presented it. I went through each theme and asked them to share freely along the way as they felt compelled or inspired. The five themes were: support and colleagues, professional development, reflective practices, students and families, and perspectives theme. During the focus group, I shared all the specific responses with the participants so the themes did not matter much to the participants as they were able to hear all the details.

The main feedback from the focus group was that time with colleagues and support had a tremendous impact on every practice. They also mentioned intentionality is important for teams and professional learning communities. The work of support staff can be impactful if the correct folks are in place and properly trained whether that is a coach or a mentor or even your teammates This can also include whether there is enough support staff for your building.

The main takeaway was that no matter who was supporting the educator, a conversation was better than a form. “It’s not going to make you an effective teacher to fill out six pages of paperwork. Reflective conversation is the most effective, the most impactful,” said one of the teachers. Every educator present nodded and agreed. One participant even asked her to repeat what she said.

The professional development theme lacked much commentary until I mentioned time to process professional development and then I saw heads moving and heard a yes

and some comments started to come about needing time to process after you get all of the information as well as time to do something with the new materials prior to having to actually teach them. There was also a desire to circle back to topics for time to reflect with peers in a timely manner. They felt that sometimes it takes months and sometimes topics are never returned to at all prior to “them just throwing something else on us.” I could tell the strong sense of frustration here and heard the words “not effective” used as well. A solution-focused individual thought it would be helpful to ensure those responsible for creating the school calendar should be mindful of staff development. Another practice suggested was to give teachers a choice in professional development like a menu especially across grade levels so it would match needs and student needs as well.

I asked explicitly about book studies as they showed up as positive and negative in my data. There was a strong agreement in book studies that the intent may be good but the execution is rarely done well. The most veteran teacher shared, “I have never been part of an effective book study in my entire career.” And another teacher added that the intentionality of how their time was being used was not great in a book study as it is prolonged and some never finish.

The reflective practice about the theme of feedback centered around giving oneself permission to stop and make a change or start again or redo something if needed. One of the teachers said it was, “permission to pivot” which everyone agreed was appropriate.

The students and families theme had no feedback except that the items shared were accurate from their point of view.

The perspective theme feedback resulted in a discussion of an area of need for this particular district according to this group. They focused on wanting a mentorship program. The survey data was more about gaining perspective from seeing others teach and being about to step outside your role. That was also discussed and agreed with but not everyone in the group had had that opportunity so the conversation switched to mentorship and opportunities to experience others' teaching.

Most Impactful to Students

Another question asked the participants to consider the four themes that resulted from section two, question four of the survey. The question was: *When have you felt the most able to impact student outcomes? What work experiences have helped that successful feeling continue? These experiences may be similar or different from the items you already mentioned in question three.* The four themes that emerged from the survey and focus group data combined were:

- Students
- Time
- Support staff
- Vision and reflection

This conversation during this section was brief and went right away to relationships and the experiences during COVID's blended learning model. How it was easier to have a much bigger impact when you "...only were working with 12 kids today and I could support all of them fully. I knew them so much better than I've ever known any other class because you had a smaller class and you could actually do more in small groups or a reasonable size. There were no behaviors because you had a reasonable

group.” This section was a bit off due to the direction the conversation went with the first speaker. We were running short on time so I moved on.

Least Successful Work Experiences

A third question we reviewed was question five: *What work experiences throughout your teaching career have made you feel the least successful (able, capable, impactful) in your practice as an educator?* Five strong themes emerged from the responses to question five. We reviewed the five themes. The focus group participants had much more to say and stronger opinions on this question. They stopped me as I went and shared their thoughts.

The curriculum theme brought out a lot of energy in the participants. If they were not speaking they were actively nodding and approving what their colleagues were saying in regard to the theme. This topic felt disconnected and outside their control as there was a lot of “they” language. The teachers discussed how decisions being made do not consider the demands already being placed on teachers and students for their developmental ages, length of the day, and volume being taught in a day. The teachers discussed how quickly the decision-makers lose perspective once out of the classroom.

There was also some discussion here on the curriculum selected by a building team and why it may have a negative impact. The focus group had questions on the wording and meaning of building team. It was decided that there was likely not a full understanding of the question and that is why the responses were what they were. I felt due to the potential misunderstanding that I should omit the results of that question from my data to not skew my results.

The support theme conversation covered administrators not giving vague or general corrections and instead going directly to the parties involved to have a courageous conversation even though they can be hard to hear they can also be helpful. The helpful portion for me was the clarification regarding special education. I was not sure what the individual met in the survey so this added clarity. It relates to impacting efficacy for the teacher because “Sped teachers don’t keep their groups for the entire time they are supposed to so the student is not getting their IEP minutes and it also disrupts what is happening in my class because the students come back early. And I also would like to know what the SPED teacher is doing during that 10 extra minutes! Where is that accountability piece?” Everyone wants extra time, which affects our efficacy because student achievement is effective and collaboration is impacted as well.

The professional development and decisions theme was another animated part of the conversation. While I was reading the responses on this one some of the group chuckled. A teacher said, “I have been to so many things that the person has said we’re building the plane while it’s in the air.” There was a lot of frustrating conversation here and a lack of confidence. The group felt it went back to irrelevant professional development or not being intentional with the educators’ time or the timing of launches.

The time theme was straightforward. The group felt there was not enough time for anything and too much busy work.

The students and families theme conversation was mostly about behavior and expectations. There was also discussion on relationships and wanting the best for students and how their needs change from grade to grade. There was some, although limited,

frustration over things being outside their control at home as most seemed to have come to terms with that reality.

To end the session I handed out the follow-up questions to get their final efficacy rating and to see if they had anything to share privately that they did not have a chance to share during the group.

Resulting Themes

Out of the survey short-answer questions recurring themes occurred. The themes themselves sometimes had subcategories but the main themes were of interest. I put them into Table 8 to make them easier to see. Table 8 is powerful because it shows many of the same themes listed across categories. The importance for education and administrators is that at the surface level it could be misinterpreted if you did not read the actual responses and look deeper into the data.

Table 8

Synthesized Result Themes

Question 3	Question 4	Question 5
What work experiences throughout your teaching career have made you feel the most successful in your practice as an educator?	When have you felt the most able to impact student outcomes? What work experiences have helped that successful feeling continue?	What work experiences throughout your teaching career have made you feel the least successful in your practice as an educator?
Support and Colleagues	Support Staff	Support
Professional Development		Professional Development and Decisions
Reflective Practices	Vision and Reflection	
Students and Families	Students	Students and Families
Perspective		
	Time	Time
		Curriculum

In regards to my research questions: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* and my second question: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?* I was able to gather information to inform those answers. I have both broad categories and specific information that came out of the survey and focus group conversation.

High-performing teachers tend to rate themselves at or lower than their administrator would guess they would rate themselves which is not surprising to me. Based on the survey and focus group data the top factors that impact teacher efficacy are time, support, relationships, and reflective practices. Those words may not match the exact words above but they would match words that fit in the subcategories or explanations. For example, under students and families, it is often about relationships or connections and in professional development, there was much talk about time to unpack the learning and reflect as you put it into practice.

Further, the reason the same words may be in the same column that increased and had a negative impact was that when they matter so much to your efficacy they can have a strong negative impact as well if not handled properly. The strongest negative impact came from curriculum and curriculum launch practices for interrupting efficacy. Some of that is due to the disruption it has due to the time commitment. This also held true for professional development as to the timing, delivery, methodology, and reasoning which was across the board the same data.

In chapter five, I share key findings for administrators that should fill the gap in the literature based on my results. Based on the results I know I will change my practice without question about how I approach some things to ensure I am not interrupting teacher efficacy in the building.

Summary

The survey data was the basis of my research but I was most appreciative of the focus group. Even though the survey was clear and fairly straightforward in its findings, I gained perspective from the focus group participants' voices, their cadence, and the urgency of their responses that you can not sense in a survey. The participants were also helpful because they clarified some of the responses I had received.

In chapter five, I discuss my interpretation of the results and overall conclusions of the research. Chapter five also discusses the implications of the research for schools and how I may share my findings with my peers.

CHAPTER FIVE

Conclusion and Findings

Introduction

My research involved a grounded theory approach to investigate teacher efficacy. I took this approach because my literature review found immense amounts of research as to how to measure a teacher's sense of efficacy and the tools to use for that type of research. However, as an administrator who had in the past several years started new in two different buildings, in two different districts, I knew the importance of not interfering in the good things that might be happening already. I was looking for something different in the literature, something more specific and I could not find it, so that brought me to my research questions: *How do elementary teachers in a high-performing suburban school describe their perception of efficacy and the factors that impact it?* and my second question: *What practices can initiate or interrupt a cycle of efficacy, positively or negatively?*

I used a survey and focus group to triangulate my findings. This was a successful approach that allowed me to get clarity on some of the findings and allowed me to invalidate a question due to the question wording being potentially misunderstood by participants which I will discuss more later in limitations.

Major Learnings

There were different categories of themes that emerged of practices that affect efficacy. Table 9 shows all of the main learnings after both the survey and focus groups were completed. Efficacy was positively impacted by time to work with colleagues and collaborate with teams or dig into materials with PLCs for example. Time given had

many positive impacts. Support had a positive impact in two main areas. Support was positive if effective for the staff member themselves or if support was effective for students in the the educators class for interventions or special education services or behavior. Relationships were vital in many areas. Strong or effective teams had the highest positive impact for efficacy as were other relationships throughout the building including with the administrator, coach, and mentor. Reflective practices were also important for efficacy in teachers. Some of the most reflective impact included vicarious learning experiences.

Table 9

Major Learnings for Administrators

Positive Impacts on Efficacy	Negative Impacts on Efficacy
Time Support Relationships Reflective Practices	Curriculum Adoptions Professional Development

The first negative impact found to hinder efficacy was curriculum adoption. The considerations are the timing of the adoption and the training that goes along with the adoption. There was also discussion regarding having time to spend time with their team to dig into the materials after the training, organize, create, and plan before having to launch the curriculum. The other negative impact was professional development. This hindrance had to do with who and how the learning was structured. Was there choice in the learning for the staff? There was also a discussion regarding making sure that the learning was circled back to so that it is not a one and done. In these manners, time was also listed as a negative influence and it can also have a highly negative impact. One does not directly negate the other. Time impacts so many different practices that it could have both a

positive and negative impact at the same time due to different practices. Time is a consideration but it is time as it relates to these two items that should be considered.

Revisiting the Literature

Bandura (1977) originally emphasized four broad sources of efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion. These sources are relevant to revisit as they support my themed findings in both survey questions three and four. For example, my resulting themes of supporting colleagues and professional development both are examples of social persuasion under Bandura's definition. My resulting theme of reflective practices would be an example of physiological and emotional states. Finally, my theme of perspective would be an example of vicarious experiences from Bandura's explanation of his sources of efficacy reinforcement.

Efficacy is not necessarily linear or consistently paced. Changes in any of the practices or themes that emerged can cause a temporary dip in efficacy as the new information is processed into the efficacy cycle. Wheatley (2005) felt that occasional self-doubt was important for teachers or they may not feel motivated to change. I am not sure I agree as it seems to me the change for the teachers in my research came prior to the dip in their efficacy which was caused by the implementation of the new initiative.

Guskey's (1986) theory that initiatives fail because school leaders do not consider teacher motivation to participate in professional development is confirmed by the findings of my research. Professional development had a large negative impact on efficacy and was harmful to efficacy cycles. In the next section I will be identifying practices missing from the existing literature to help improve efficacy.

Major Findings and Implications

From the beginning of my research, I wanted a practical list of things that school administrators could do or avoid to help teachers build their efficacy since this was missing from the literature. I have strong findings to add to the literature coming out of this research. The methodology was appropriate to triangulate the findings and the open-ended survey questions were necessary to get the educators' insights properly recorded as they shared things I would not have thought to include.

What practices can administrators protect or support in some notable areas, to positively impact teacher efficacy? I took the answers provided by the open-ended survey questions and started to look at the data. There was considerable overlap which I wanted to show an example of visually. I am including Table 9 because it is easier to see than describe. Many of the things mentioned fall into more than one theme. For example, if something takes time it may also be a reflective practice and build relationships. The table only shows a very small sample of the items mentioned. Notice, they all take time; everything takes time. Then I show the crossover categories. The table is not all of the topics, since it would be too large. It is only to show the crossover in these few samples.

Table 10*Example of Crossover of Practices*

Time	Support	Relationships	Reflective Practices
team time to reflect, collaborate, and plan		team time to reflect, collaborate, and plan	team time to reflect, collaborate, and plan
time to create materials as needed			
time to just connect as a team		time to connect as a team	
Mentor support in early years to develop needed skills	Mentor support in early years to develop needed skills	Mentor support in early years to develop needed skills	Mentor support in early years to develop needed skills
Opportunity to dig into resources together	Opportunity to dig into resources together		
Trusting each other to exchange ideas and then implementing them in class	Trusting each other to exchange ideas and then implementing them in class	Trusting each other to exchange ideas and then implementing them in class	
PLC work with my team but I would love to see other PLCs with my team and learn together or get some training to be more impactful	PLC work with my team but I would love to see other PLCs with my team and learn together or get some training to be more impactful		PLC work with my team but I would love to see other PLCs with my team and learn together or get some training to be more impactful

The crossover is not a limitation but it needs to be mentioned.

The practices the data suggests administrators should most focus on to improve or support efficacy would be in the areas of time and support for teachers. A third could be relationships. It is less the relationship with the staff member and more the relationship of the staff members among themselves but that could be somewhat in the hands of the

administrator as they consider teams and placements when there is a choice in those decisions. I mention only these three as they would be most likely within the control of the administrator. The other one or two things to consider are relationship and reflective practice which are more in the control of the educator themselves. I did put relationships in both categories as the personal part of the relationships within the team then falls on the educator.

Time is within the administrator's control to a certain extent. We can be thoughtful and intentional about what we are adding and asking and, if possible when removing things. We cannot add time to the day but we can be intentional about the schedule and ensure we have teacher voices at the table when making the instructional plan. Other ideas that came up were the school calendar and planning the professional development days on the calendar for the year. Time to connect with their team was meaningful and ensuring time at the beginning of every meeting to circle back and reflect on the learning from the prior meeting would be meaningful as well and is often within an administrator's control. Also, considering that every time something is added thinking about what might be removed is a gift of time returned. Another thing that came up was connecting with other teams that may have figured things out or be facing the same struggles. This could be helpful even though it takes time it would be considered as time well spent.

Support had different meanings to different teachers but it mainly meant either support for them as an individual in their efforts to grow as a teacher or support for their students if they were struggling to learn. These two things can be limited for an administrator by budget but knowing how important they are for teacher efficacy could

allow for conversations, improved understanding, and then prioritization within a building.

The second thing I wanted to accomplish with my research was to ensure I could add to the literature. My intent was to add a list of practices to avoid to ensure that, as an administrator, I would not undo the good things that were already going on in a building. The results suggest these are practices administrators should consider with extreme intention to avoid a harmful impact on efficacy: professional development and curriculum. The concerns here were often time-related as well. The concern was that the professional development was not differentiated to the staff needs and was typically a one-size fit all model delivered by district center folks who are too far removed to understand the educator's needs. The professional development was then not revisited at all or in a timely manner so the learning had little or no impact which felt like a waste of their time. It may even be delivered with a message that they were building the plane while flying which makes the staff feel like it was not well-planned or well-timed. The curriculum concern was similar and mostly had to do with the launch timing leaving them little time to dig into materials to properly prepare to teach it with efficacy. Teachers would like more of a "why" to curriculum selections and an opportunity to be trained early and work across the district with other educators to feel fully prepared and impactful.

Limitations

The primary limitation was that I did not do a pilot test of my survey and therefore I did not catch a poorly worded survey question that I believe caused some confusion based on the focus group conversation. The survey question was in section

three and asked them to use the ranking scale of one through five if: *Receiving a new curriculum or materials that were selected by a building team*. The responses were 45.5% negative which is why I asked for clarification. The clarification left the focus group asking me follow-up questions regarding what I meant about “building team” and “materials” and then guessing what building team possibly meant. So I asked them if they thought perhaps the negative results were due to confusion about the wording of the questions and they said yes. They were not sure what it meant. Therefore, I am not sure the results of that question can be considered valid.

Another limitation was that I had to switch the intended location of my research fairly late in my process. I had checked to ensure I could do my research in my district but the specifics in regard to doing research in my own building were unclear. The only significant impact was that the building I used instead was smaller so the participant pool was smaller. The outcome would not have changed, in my opinion.

Future Research

I have two ideas for future research. One is to extend my research and the other is to add to the general body of research. I think a longitudinal study that follows a specific group of teachers from early in their careers through to five years of teaching while they experienced these different practices along the way and gathered data. There were very few longitudinal efficacy studies in general and none that I saw specific to what I am suggesting. The other general area where there did not seem to be much existing research was cultural research on efficacy so that is a field that could use exploration as well.

Communicating the Results

I am relieved to have some firm findings as a building leader. I plan to share them in our professional association blog with my fellow elementary principals in January. I also plan to intentionally partner with my district leadership to share the outcomes. My hope is to positively impact professional development and curriculum adoption practices. It feels a bit less unknown moving forward. None of the results were huge “ahas” but they were solid reminders. The focus group voices and the urgency of the conversations were meaningful. I also was impacted by the depth of meaning of the different themes for the educators as I read their responses.

Conclusion

According to research, the study of efficacy in education is not new. The outcome of my ground-theory research added new findings to the literature. Efficacy is a living, evolving, and varied state. More importantly to me, my findings added usable knowledge for building administrators to help teachers sustain efficacy. And, most importantly, efficacy impacts student achievement so the findings will positively impact students.

I think that being a building principal that has had to start new in different buildings and different districts, I recognize the importance of these findings. I also recognize the practices I can control and where I can be intentional. DuFour (2002) saw the most success in schools where teachers felt empowered to achieve mastery for students. Mastery for students is directly linked to efficacy and my research links improved or sustained efficacy to time, support, relationships, and reflective practices.

REFERENCES

- Alrefaei, N. A. (2015). Teachers' sense of efficacy: Examining the relationship of teacher efficacy and student achievement (Publication No. 1192) [Doctoral dissertation, University of Arkansas, Fayetteville]. <http://scholarworks.uark.edu/etd/1192>
- Armor, D., Conry-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A., Pauly, E., & Zellmen, G. (1976). *Analysis of the school preferred reading program in selected Los Angeles minority schools*. Rand Corp.
<https://files.eric.ed.gov/fulltext/ED130243.pdf>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
<https://psycnet.apa.org/doi/10.1037/0033-295X.84.2.191>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1184. <http://pham315.pbworks.com/f/Bandura+1989.pdf>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Company.
- Bergeron, P., & Rivard, L. (2017). How to engage in pseudoscience with real data: A criticism of John Hattie's arguments in *visible learning* from the perspective of a statistician. *McGill Journal of Education*, 52(1), 237-246.
<http://mje.mcgill.ca/article/view/9394>
- Cayci, B. (2011). The relationship between the elementary teacher candidates' teacher efficacy and their attitudes [*sic*] towards the profession of teaching. *Education*, 132(2), 402-418.

link.gale.com/apps/doc/A278759338/AONE?u=anon~5d1ec1c8&sid=googleScholar&xid=d11199ba.

- Chen, J., Brown, G. T. L., Hattie, J. A. C., & Millward, P. (2012). Teachers' conceptions of excellent teaching and its relationships to self-reported teaching practices. *Teaching and Teacher Education, 28*, 936-947.
<https://doi.org/10.1016/j.tate.2012.04.006>
- Creswell, J. W., (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Sage Publications, Inc.
- Duffin, L. C., French, B. F., & Patrick, H. (2012). The teachers' sense of efficacy scale: Confirming the factor structure with beginning pre-service teachers. *Teaching and Teacher Education, 28*, 827-834. <https://doi.org/10.1016/j.tate.2012.03.004>
- DuFour, R. (2002). The learning-centered principal. *Educational Leadership, 59*(8), 12-15. <https://www.ascd.org/el/articles/the-learning-centered-principal>
- Eells, R. J. (2011). Meta-Analysis of the Relationship Between Collective Teacher Efficacy and Student Achievement (Publication No. 133) [Doctoral dissertation, Loyola University]. https://ecommons.luc.edu/luc_diss/133
- Every Student Succeeds Act, 20 U.S.C. § 6301 (2015).
- Fink, A. (2017). *How to conduct surveys: A step-by-step guide*. Sage Publications, Inc.
- Fisher, D., Frey, N., Almarode, J., Flories, K., & Nagel, D. (2020). *PLC+: Better decisions and greater impact by design*. Corwin Publishing.
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*(4), 569-582.
<https://psycnet.apa.org/doi/10.1037/0022-0663.76.4.569>

- Glos, K. S. (2018). Exploring the relationship between teacher self-efficacy and mindset in high school teachers (Publication No. 10838413) [Doctoral dissertation, Dallas Baptist University].
<http://www.proquest.com/en-US/products/dissertations/individuals.shtml>.
- Goddard, R. D. (2001). Collective efficacy: A neglected construct in the study of schools and student achievement. *Journal of Educational Psychology, 93*(3), 467-476.
<https://doi.org/10.1037//0022-0663.93.3.467>
- Goddard, R. D., Hoy, W. K., & Woolfolk Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher, 33*(3), 3-13. <https://doi.org/10.3102%2F0013189X033003003>
- Guskey, T. R. (1981). Measurement of the responsibility teachers assume for academic success and failures in the classroom. *Journal of Teacher Education, 32*(3), 44-51.
<https://doi.org/10.1177%2F002248718103200310>
- Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5-12. <https://doi.org/10.3102%2F0013189X015005005>
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 Meta-Analyses related to student achievement*. Corwin.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge.
- Hoy, W. K., Sweetland, S. R., & Smith, P. A. (2002). Toward an organizational model of achievement in high schools: The significance of collective efficacy. *Educational Administration Quarterly, 38*(1), 77-93.

- Klassen, R. M., Tze, V. M. C., Betts, S. M., & Gordon, K. A. (2011). Teacher efficacy research 1998-2009: Signs of progress or unfilled promise? *Educ Psychol Rev*, *23*, 21-43. <https://doi.org/10.1007/s10648-010-9141-8>
- Lee, C. & Bobko, P. (1994). Self-efficacy beliefs: Comparison of five measures. *Journal of Applied Psychology*, *79*(3), 364-369.
- McKinney, M., Sexton, T., & Meyerson, M. (1999). Validating the efficacy-based change model. *Teaching and Teacher Education*, *15*, 471-485.
- No Child Left Behind Act of 2001, P.L. 107-110, 20 U.S.C. § 6319 (2002).
- Ross, J. A. (1994). The impact of an in-service to promote cooperative learning on the stability of teacher efficacy. *Teaching and Teacher Education*, *10*(4), 381-394.
- Ross, J. A., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement*, *17*(2), 179-199.
<https://doi.org/10.1080/09243450600565795>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1-28.
<https://doi.org/10.1037/h0092976>
- Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and academic learning: self-efficacy enhancing interventions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 631-649). Academic Press.
<https://psycnet.apa.org/doi/10.1016/B978-012109890-2/50048-2>
- Sun, J., & Leithwood, K. (2015). Leadership effects on student learning mediated by teacher emotions. *Societies*, *5*, 566-582. <https://doi.org/10.3390/soc5030566>

- Thornton, B., Zunino, B., & Beattie, J. W. (2020). Moving the dial: Improving teacher efficacy to promote instructional change. *Education, 140*(4), 171-180.
- Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal, 110*(2), 228-245. <http://dx.doi.org/10.1086/605771>
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*(6), 944-956. <https://doi.org/10.1016/j.tate.2006.05.003>
- Wang, L., Tan, L., Li, J., Tan, I., & Lim, X. (2017). A qualitative inquiry on sources of teacher efficacy in teaching low-achieving students. *The Journal of Educational Research, 110*(2), 140-150. <http://dx.doi.org/10.1080/00220671.2015.1052953>
- Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*(1), 3-25. <https://doi.org/10.1037/0022-0663.71.1.3>
- Wheatley, K. F. (2005). The case for reconceptualizing teacher efficacy research. *Teaching and Teacher Education, 21*, 747-766. <https://doi.org/10.1016/j.tate.2005.05.009>
- Woolfolk Hoy, A., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education, 21*, 343-356. <https://doi.org/10.1016/j.tate.2005.01.007>
- Zee, M. & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40

years of research. *Review of Educational Research*, 86(4), 981-1015.

<https://doi.org/10.3102/0034654315626801>

Appendix A

Efficacy and Efficacy Practices Survey

This is the language and these are the questions from the electronic survey.

This questionnaire is designed to help answer the research question: How do elementary teachers in a high-performing suburban school describe their perception of efficacy and factors that impact it? It will also help identify: What practices can initiate or interrupt a cycle of efficacy, positively or negatively? Please indicate your opinion on each of the questions below. Your responses will be kept strictly confidential and you will not be identified as a participant.

*For the purposes of this survey, **Efficacy is defined as how able the teacher feels in their practice to impact a student's learning.***

Section One:

1. Thinking of your practice (skills and abilities) do you feel able to impact a student's learning?

1	2	3	4	5
Not at All	Very Little	Some Ability	Able	Highly Able

2. Thinking of your combined efforts with your colleagues (combined skills and abilities) do you feel you are collectively able to impact student achievement?

1	2	3	4	5
Not at All	Very Little	Some Ability	Able	Highly Able

Section Two: *Remember there are no wrong answers. Efficacy is a feeling and it is your own judgment of your practice. Please be as reflective as possible so the resulting list will be helpful to grow efficacy for others.*

3. What work experiences throughout your teaching career have made you feel the most successful (able, capable, impactful) in your practice as an educator? Please, be as thorough as possible and include any items you felt were beneficial to your feeling of efficacy in your practice.

(section to list answers - five required, but room for more)

4. When have you felt the ablest to impact student outcomes? What work experiences have helped that successful feeling continue? These experiences may be similar or different from the items you already mentioned in question three.

(section to list answers - three required, room for more)

5. What work experiences throughout your teaching career have made you feel the least successful (able, capable, impactful) in your practice as an educator? Please be as thorough as possible and include any items you felt hindered or stopped your feeling of efficacy in your practice.

(section to list answers - five required, but room for more)

Section Three:

Please use the scale below to indicate the level of help or harm the practice caused to your efficacy (how able, capable, and impactful you feel in your practice).

1	2	3
Harmful or stopped my efficacy	Some negative impact to my efficacy	No impact to my efficacy
4	5	
Supported my sense of efficacy	Increased my sense efficacy	

6. Initiating a new practice or initiative successfully:

7. Struggled but eventually figured out a new curriculum as a team:

8. Receiving a new curriculum or materials you felt you needed or had a voice in choosing:

9. Receiving a new curriculum or materials that were selected by a building team:

10. Observed a respected peer and recognized potential improvements I could make in my teaching.

11. Participating in required observation cycles:

12. Teaching a curriculum that is outdated or does not align with my thinking:

13. Being able to engage in an observation/feedback cycle that I initiate on a topic I select:

14. Optional professional development that lets me choose how or when to engage:

15. Received a public oral or written compliment from a peer or administrator about your practice:

Appendix B

Focus Group Clarification Protocol

After completing consent forms. Focus group members will privately rate their efficacy level and give that to me. I will review efficacy definitions and the goals of the research as stated below. At the end of the focus group I will ask them to re-rate their efficacy levels.

Efficacy Definition: How able a teacher feels about their practice to impact a student's learning. It is a personal judgment. It is not based on measurable skills. It has a huge impact on student achievement.

This Study: Existing research had overall themes of what causes efficacy but I could not find a specific-actionable list for how to sustain or grow efficacy for teachers. Even more important to me, I could not find ways to avoid interrupting a positive efficacy cycle as an administrator. My research seeks to address this need. My methodology is a grounded theory approach to produce a new theory on the current professional practices that affect efficacy. To to that, I need a focus group to help triangulate my survey data. Thank you for being here!

Your voice is important. Please share openly and bravely. Nothing you say here today will be shared outside this room nor will it be used for anything outside this research. I respect your opinion and that is why you are here. Please, try to address each other using the numbers (it's hard so don't worry if you forget, I can delete names!) Let's get started:

1). From the survey "What work experiences throughout your teaching career have made you feel the most successful (able, capable, impactful) in your practice as an

educator? Your job today is to help me review the answers and make sure I haven't missed anything!

Five main themes emerged from the survey. The themes were Support and Colleagues, Professional Development, Reflective Practices, Students and Families, and Perspective. We will go through each of these themes so you can add your thinking.

We will start by focusing on the support and colleagues theme. Some of the categories could be broke down further. If they did, we'll go through them one at a time.

<p>Team Time: Collaboration, planning, caring colleagues, time to plan and reflect with my grade-level team, time to create pre and post tests along with strategies for specific skills, working, planning and talking as a team,</p>

<p>PLCS: Opportunity to dig into resources together, exchanging ideas and then implementing them in class, PLC work with my team but I would love to see other PLCs with my team and learn together or get some training to be more impactful, PLCs taught me how valuable working together for "all our students" can be as long as time is invested in postive team dynamics, room for open-vulnerable and trusting conversations, implementing new strategies and ways of teaching that focus on critical thinking</p>
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<p>Coaches/Mentors: support as needed, mentoring in early years was so helpful - I learned behavior managment that I still use today,</p>
--

<p>Strong administrators: care, support teachers, clear and specific admin feedback during observations early on helped me focus on specific areas of strength and growth,</p>

Would any of you care to agree/disagree or add anything specific to those ideas regarding your work experiences? There are no right or wrong answers.

We will continue with the **professional development theme**. Under this theme, there were no easily identifiable subcategories. Here's some ideas...

Book Study: Reading about a concept and then applying the concept with my students, Book study was teach like a Champion,
Equity work to become better at understanding, communicating, and planning instruction for historically marginalized students
PD on Differentiated Instruction and other content specific PD
Time to attend and then process PD, Time to try PD right away and reflect on how it is going
PD to help with data analysis
PD that immerses you in the training, not just one and done, PD that is done with a partner, PD that you are responsible to then teach to others

Would anyone care to get us started by sharing their thoughts regarding work experiences about professional development?

**Before moving on...Book studies did show up in two places as both a positive and negative impact so I would like some clarity on that if possible.

Next is the **reflective practices theme**. Again, there were no specific subcategories.

Time to reflect on teaching practices
There have been times when I taught a lesson and was not happy with a part of it. I love when I have a second opportunity and make an adjustment and it clears up the issues.
Equity work to help me understand my own mindset and be reflective
Recording and rewatching lessons helps to notice things that are going well and things that could use some fine-tuning

What are your thoughts on this theme?

Continuing on, we will look at the theme of **students and families**. One subcategory here was relationships.

Students/Families
Small class sizes
Partnering with supportive parents have been key
Relationships: Love when I make a connection with a student that builds a new level of trust, building in time for SEL skills to form community is vital,
Students are held to high standards and thrive on structure

Please, feel free to share your thoughts regarding work experiences on anything to do with students and families.

The last theme was **perspective**. The overall theme was about learning from others and gaining perspective outside your own classroom.

Gaining experience that provides a wider lens - district-wide, grade wide, etc - especially if it allows you to still keep a boot on the ground to what is really happening or being asked to do in the classroom
Access to insights like administrative goals, directives, forward-thinking plans while teaching adds perspective and partnership
I gained a ton of perspective when teachers were subbed out 3Xs a year to see other teachers, I got ideas to share with colleagues but it is never as good as seeing it yourself
Watching other teachers teach and reflecting with each other
Try other roles if possible
Stepping outside your own classroom was by far the most impactful on my teaching in a positive way to learn from others

Please, share your thoughts regarding work experiences on this theme.

Before we move on to the next question, is there anything anyone would like to add about a work experience that has added to your efficacy that has not been mentioned?

2). Okay. Now Question 4 of the survey: “When have you felt the most able to impact student outcomes? What work experiences have helped that successful feeling continue? These experiences may be similar or different from the items you already mentioned in question three.”

Section two of the survey revealed four main themes. The themes were support staff, students, vision and reflection, and time. Only one of these themes had identifiable subcategories so we will start with that one, the **students theme**.

Student
Class Size: Smaller class sizes, small class sizes so I can meet with small groups and focus on specific needs, small group reading instruction, small group teaching and conferring is where I can gauge if students are learning and it is my favorite informal assessment
Behavior: School-wide expectations, behavioral support, restorative support for behavior in the classroom
Relationships: Building a relationship with my students, strong classroom community and student connections has affected my student outcomes, playtime with students to figure out what makes them tick
Connections: Helping students be motivated and find the joy in learning, knowing my students and their interests and dislikes, etc. allows me to impact their outcomes, one-on-one time with students to get to know them and their interests
Remember the soft skills that may not be reflective in data collection, we can't know everything about students through math and reading assessments, progress is not linear and is different from student to student

Another theme that came up was **time** for impacting student outcomes.

Time to process and plan after receiving PD for what to do with the new learning, time to put things into action immediately
--

Time to see other teachers and learn from what they are doing, step outside my classroom
Format to teach project-based lessons in which students work as a group toward a common goal so they can recognize their strengths and weaknesses and pick up new skills and ideas from each other

Who would like to share how time has impacted their practice?

The last two themes were less distinctive so I will combine them. Please feel free to comment on either **support staff or your vision and reflection** and their impact on student outcomes.

Support Staff
If the outcome is not as expected then strategies from PLC team are huge
Having support/resource teachers that can dig deeper and assess students if they are struggling, then having an intervention teacher that can make a plan to support the student
Follow through by deans, admin, sped staff, and specialists with students

Vision/Reflection
Being able to have a strong vision for the day
Clear and measurable learning outcome

This may also be a good time to add any other lingering thoughts about work experiences that helped you feel able to impact student outcomes.

3). Final question to review: “What work experiences throughout your teaching career have made you feel the least successful (able, capable, impactful) in your practice as an educator?”

Five strong themes emerged from survey question five. The themes were: Curriculum, support, professional development and decisions, time, students and

families. We will go through each theme. I will give you a brief overview of the topic and ask for your feedback. We will also briefly review some of the rating scale questions that fall under this same topic (marked by ** below).

Please share how _____ may have hindered your feelings of efficacy:

Support: changing coaches/staff come and go, admin/dist changing things to follow trends before knowing if its working, no staff accountability (like sped staff), not feeling valued, staff not being held to a high standard by admin

PD/Decisions: Irrelevant or disconnected PD, changes without an understanding as to why like homogeneous classrooms, one size fits all PD, not allowing schools to work together across the district, initiatives that are started with the “why” for all staff, required training for early career teachers are too stressful and impact is lost, PD that adds work and timing isn’t considered

Time: not enough for anything and too much busy work

Students/Families: large class sizes, interfering parents, student behaviors and lack respect for adults, inequities across buildings

Curriculum: launch timing, reason behind decisions, not meeting student needs or best practice, dist staff is too far removed from current classroom reality

**Teaching a curriculum that does not align with my thinking (72.7)

**struggled but eventually figured out a new curriculum as a team (27.3)

**Initiating a new practice or initiative successfully (18.2)

**Receiving a new curriculum or materials you felt you needed or had a voice in choosing (18.2)

**Received a new curriculum or materials that were selected by a building team (45.5)

What else would anyone like to add that has hindered their sense of efficacy?

Last thing, (hand out the slip) please indicate your seat number and rate your final efficacy rating for yourself as it may have changed in the course of the conversation.

There is also a space for you to add any additional information that you may not have wanted to add out loud. Thank you for being here. I appreciate your time and perspective.