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The Power of Collective Teacher Efficacy: People, Process, and Product

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PRODUCT

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CHAPTER I
THE PROBLEM

Introduction

According to Brinson and Steiner (2007), principals and district leaders should turn their attention to improving collective teacher efficacy because it has an impressive list of positive consequences (Donohoo, Hattie, & Eells, 2018). Collective teacher efficacy, which is the belief that through collective actions, educators can influence student outcomes and improve student learning (Tschannen-Moran & Barr, 2004), ranks as the greatest factor impacting student achievement (Hattie, 2016). Given its effect on student achievement, strengthening collective teacher efficacy should be a top priority relevant to everyone in the field of education (Donohoo, 2017). Tillotson (2015) states that school leaders must focus on impacting site-based school culture on their campuses. Prothero (2008) states that educational leaders need to provide their staff with experiences that lend the opportunity for mastery experiences, purposeful staff development, and inspiring purpose through a shared vision that is focused on student achievement.

Since efficacy beliefs influence how educators think, feel, and motivate themselves (Bandura 1993), they have a major impact on a school's culture. Moreover, when a positive efficacy cultural element is present, educators' efforts are heightened- especially when they are faced with the difficult challenges, such as harsh testing schedules, class sizes, and insufficient funding (Donohoo, Hattie, & Eells, 2018). Teachers and leaders with a high sense of efficacy approach their work with an intensified persistence and strong resolve which assists them in successfully meeting the rising demands and expectations facing them. Furthermore, Donohoo's (2018) studies indicate that efficacy is associated with positive factors including greater job satisfaction, commitment to students and the teaching profession, and positive attitudes toward

teaching students with special education needs as well as professional development. Thus, it is critical that educational leaders promote the development of the team and become integral parts of the team themselves (Hargreaves & Fullan, 2012).

Purpose of the Study

Together, people can accomplish that which one person cannot. In the world of education, individuals execute the work of the collective daily. Enough cannot be said about the critical role this collective, didactic group plays in students' lives. The collective is, specifically, the teachers, faculty, staff, and administrators within schools, who collaborate, to make sure students are not just meeting state standards but are also reaching their fullest academic and social potential.

Over the past decade, there has been a strain on teachers, administrators, schools, and districts to increase student academic achievement in the United States to help the US reach its full potential (Raines, 2015). From increasing reading and math proficiency levels to improving high school graduation rates, there is no question that educators from the top down are feeling the pressure to compete globally (Raines, 2015).

Lack of Student Achievement

According to the National Center for Education Statistics (2018), "the Program for International Student Assessment (PISA) is the largest international comparative study of education in the world, and one on which policymakers increasingly rely to provide an international benchmark for the performance of U.S. students." International exams, like the PISA, are generating great national concern, as the tests show that the United States is behind, in terms of student achievement among other prevailing nations. Data collection for the most recent assessment was completed in Fall 2015, and the overall results were as follows:

-The U.S. average performance in science literacy was 496; this was lower than 18 educational systems, and higher than 39.

-The U.S. average performance in reading literacy was 497; this was lower than 14 educational systems, and higher than 42.

-The U.S. average performance in mathematics literacy was 470; this was lower than 36 educational systems, and higher than 28.

-Twelve education systems had higher average scores than the United States in all three subjects. The twelve education systems were: Canada, Estonia, Finland, Germany, Hong Kong-China, Ireland, Japan, Macao-China, New Zealand, Republic of Korea, Singapore, and Slovenia (National Center for Education Statistics, 2015).

Role of the Teacher

Due to this lackluster national performance of the American educational system, public pressure for improvement is increasing. According to Eells (2011), "as the United States seeks to define what is essential to the health and success of our schools, a host of variables must be examined…" The focus has shifted from students "doing their best" to teachers not meeting the needs of all students. However, Eells states, "…research suggests that in order to improve schools, teachers must feel empowered to do so instead of feeling blamed for things beyond their control" (2011). Tension between the public, legislators, and schools continues to rise each day that passes, without substantial increases in student achievement results (Raines, 2015). "The connection between collective teacher efficacy and student achievement is particularly salient now as the United States considers the role of teachers in schools" (Eells, 2011).

Power of Culture

While external factors are vital to support change, Tillotson (2015) states that school leaders must start from within by focusing on impacting site-based school culture on their campuses; culture will undermine almost anything, including money or any teaching strategy, because if the culture is not ready to accept and implement it, the change will never occur. Moreover, Hoy and Miskel (1996) have shared that teachers, staff, and administrators are members of school organizations and their shared beliefs influence the social milieu of schools; due to this, campus culture starts with the educator in the classroom (1996). Often, those teachers, who are at the forefront of it all, are not consulted, advised, or included in the decision-making or policy implementing focused on school improvement. This needs to change. "When formal leaders provide opportunities for shared leadership…everyone benefits" (Donohoo, 2017).

Shared Leadership and Collective Efficacy

Further, research on school turnaround has repeatedly emphasized the significance of effective leadership in guiding and managing change (Alajjem, et al., 2010; Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Herman et al., 2008). Meaning, school leaders' responsibilities and hence, their avenues for influence, need to be aligned with the construct and culture of shared leadership. By supporting and energizing staff around this sense of shared leadership, the collective will innovate and push themselves to achieve higher levels of performance (Lynch, 2012). Collective teacher efficacy, which is the belief that through collective actions, educators can influence student outcomes and improve student learning (Tschannen-Moran & Barr, 2004), ranks as the greatest factor impacting student achievement (Hattie, 2016). Thus, it is critical that educational leaders not just understand the power of the

collective, but promote the development of the team, and become integral parts of the team themselves (Hargreaves & Fullan, 2012). And, given its effect on student achievement, strengthening collective teacher efficacy should be a top priority relevant to everyone in the field of education (Donohoo, 2017). The capacity to affect change cannot be truly activated until educational leaders allow teachers to have the opportunity to influence school improvement decisions (Donohoo, 2017).

Statement of Problem

In a recent national "Gallup" survey conducted by Tim Hodges (2018), nearly five hundred, K-12 teachers were surveyed on the "decision-making process" at their school sites. Of these five hundred teachers, seven percent indicated that they had a "great deal of input" in school decisions. Further, 31% believed that their input was considered when making school-based decisions. According to Fullan (2018), teacher satisfaction has declined 24 percent since 2008, when 62 percent of them reported feeling "very satisfied"; within five years, only 38 percent were saying they were satisfied. This 38% slide represents a record drop and takes teacher satisfaction to the lowest level in twenty years (Richmond, 2012). Meanwhile, and not unrelated, 75% of principals feel that their job has become too complex, and half of all principals feel under great stress "several days a week", and the percentage who say they are satisfied with their work has dropped from 68 to 59 since 2008 (Fullan, 2018). Simultaneously, the percentage of teachers who said that they were likely to leave their jobs in the next five years jumped to 29% from 17% just two years ago, according to Richmond (2012). It is evident that teachers and principals are keeping pace with each other in regarding lack of job satisfaction.

The Concordia Faculty suggest (2018), when teachers do not have a role in decision-making, their voices are not heard and efficacy and subsequently culture is worsened which

lessens the impact of change. According to John Hattie (2016), collective teacher efficacy (CTE) is the number one influence related to student achievement, with an effect size of 1.57. Effect sizes show the relative impact of factors or variables; an effect size of 0 reveals that the influence had no effect on student achievement. The larger the effect size, the more powerful the influence. Hattie (2009) suggested an effect size of 0.2 is relatively small, an effect size of 0.4 is medium, and an effect size of 0.6 is large. Bandura (1993) concluded that collective teacher efficacy is positively related to student achievement and has a three-fold greater impact than student socio-economic status. According to Goddard, Hoy, and Woolfolk-Hoy (2000), "…when collective efficacy is high teachers in a school believe that they can overcome negative external influences."

Because collective teacher efficacy beliefs and social action depend on the belief that a group can affect change (Bandura, 1997, 2000), it has never been more critical that educational leaders act as catalysts to facilitate the essential conditions needed for schools to foster collective teacher efficacy and improved student achievement. Leadership is second only to classroom instruction, among school-related factors for improving student learning (Leithwood, Seashore-Louis, Anderson, and Wahlstrom, 2004).

Background

Dr. Jenni Donohoo's research (2017) on school improvement has led her to focus on collective teacher efficacy as the central factor in increasing student achievement for all students. She states that "Fostering collective teacher efficacy should be at the forefront of a plan strategic effort in all schools" (2017). At the center of her research, is the idea of collective teacher efficacy and why it is a critical component of successful schools. In *Collective Efficacy: Together We Can Make a Difference* (2016), Donohoo wrote that the most effective urban

schools appeared to have the belief, or sense of collective efficacy, that helped to positively impact student achievement.

This is, because staff with a high sense of collective efficacy, take responsibility for student successes, put forth greater effort and persistence especially aimed toward students experiencing difficulty, try new teaching approaches based on effective pedagogy, and foster student-centered teaching (Donohoo, 2018). "Collective teacher efficacy is an emergent group-level attribute- the product of the interactive dynamics of the group members" (Goddard, Hoy, Woolfolk-Hoy, 2001); this efficacy represents the shared perceptions of the group members concerning their ability to impact change in their organization's performance and bring about improvement in student achievement.

Role of Learning Leader

To enable educational leaders to influence collective teacher efficacy, it is critical for leaders to understand that several factors are at work in shaping beliefs and culture. Therefore, "…principals must intentionally help teachers develop a sense of efficacy…" (Prothero, 2008) because, "It is not enough to hire and retain the brightest teachers; they must also believe that they can successfully meet the challenges of the task at hand" (Goddard, Hoy, & Woolfolk-Hoy, 2000). When Dr. Moore defines the construct of a "Learning Leader" he states that, "Education leaders need to understand the conditions for collective efficacy to exist as well as strategies for improving it" (2018). He also encourages leaders to continue growing for the purpose of creating high-performing schools.

Conditions for Collective Teacher Efficacy

Furthermore, in Donohoo's book, *Collective Efficacy: How Educators' Beliefs Impact Student Learning* (2017), she studied that six enabling conditions for CTE which included

advancing teacher influence. Derrington & Angelle (2013) insist that there is a clear and strong relationship between collective efficacy and the extent to teacher leadership in a school. This means that as teachers assume leadership roles and are able to be a part of the decision-making process on school wide issues, a strong sense of collective efficacy increases. In fact, a study by Ross, Hogaboam-Gray, and Gray (2004) found a, "reciprocal relationship between teacher ownership of school processes and collective teacher efficacy." Thus, in order for educational leaders to support collective efficacy, teachers need to be empowered and provided with experiences to grow as leaders, because not only will efficacy be developed and strengthened within the organization, but instructional capacity will increase as well (Donohoo, 2018).

Theoretical Framework

Collective teacher efficacy has roots in Albert Bandura's social cognitive theory, which concludes that humans have control over their lives through agentive actions (Bandura, 1997). Goddard, Hoy, and Hoy (2001) suggest that, "the social cognitive theory is employed to explain that the choices that teachers make, the ways in which they exercise personal agency, are strongly influenced by collective efficacy beliefs." This means that efficacy beliefs are very powerful as they guide ones' actions and behaviors. Ultimately, efficacy beliefs help to determine focus, response to challenges, and effort outlay. "If educators' realities are filtered through the belief that they can do very little to influence student achievement, then it is very likely these beliefs will be manifested into their practice" (Donohoo, 2017). Conversely, when teachers believe that their collaborative efforts help students in measurable ways, and hold themselves accountable for that progress, they create efficacy which in turn improves achievement. Moreover, the evaluators further positioned their focus on developing a product that would enable leaders to better implement this intangible construct into a school setting. This was based in the social science

theoretical frameworks known as the theory-based evaluation. That, according to Mertens and Wilson (2012), is an approach that focuses on the theories people have about what it takes to have a successful program.

Research Questions

The-research questions for this study will be:

1. What impediments exist that prohibit a leader's ability to effectively foster and enable collective teacher efficacy?

2. What resources are available at the school/district site to impact (or affect) collective teacher efficacy?

3. What type of guide would assist leaders in implementing and sustaining collective teacher efficacy?

Definition of Terms

1. Collective teacher efficacy (CTE): the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students

2. Efficacy: the capacity for producing a desired result or effect

3. Self-efficacy: the beliefs in one's capabilities to organize and execute a course of action required to produce a given attainment

4. Social cognitive theory: an individual's behavior is primarily learned through his or her observation of others as well as through interaction with his or her environment

5. Teacher self-efficacy: teachers with a high internal locus of control and positive attitude toward overcoming difficult situations

Significance of the Study

According to The Center for Comprehensive School Reform and Improvement (2007), because there is not a failsafe set of steps that school leaders can take to improve collective teacher efficacy, combined with Bandura's (1993; 1977; 1994), Donohoo's (2017; 2018) and Hattie's (2009; 2015; 2018) research that indicates that collective teacher efficacy is the critical piece missing from school improvement efforts. Thus, the researchers developed a guide that leaders may implement in order to foster collective teacher efficacy for all to benefit.

Summary

The construct of collective teacher efficacy (CTE) and its implementation to improve school and student achievement should be at the top of all educational leaders' priority lists as it has numerous positive impacts such as improvement of student performance, enhancement of parent and teacher relationships, and creation of a work environment that builds commitment and trust at the school site (Donohoo, Hattie, & Eells, 2018). Moreover, the researchers sought to add to the knowledge about the impact of collective teacher efficacy by examining the implementation of CTE strategies or lack thereof by educational leaders focusing on the connection between theory and practice in order to positively impact student achievement.

CHAPTER II

LITERATURE REVIEW

Introduction

Due to the fact, that just 44 percent of teachers are satisfied with their teaching jobs (Richmond, 2012), the Center for Comprehensive School Reform and Improvement (2007) posit that principals and district leaders should turn their attention to improving collective teacher efficacy (CTE) at their sites. CTE has an impressive list of positive outcomes such as: improvement of student performance, amelioration of the negative effects of low socioeconomic status, enhancement of parent and teacher relationships, and creation of a work environment that builds teacher commitment to the school (Donohoo, Hattie, & Eells, 2018).

Before the new waves of research on collective teacher efficacy and its positive impact on student achievement, the Coleman Report published in 1966, educators looked to external factors to impact student achievement. In Dickinson's review of the Coleman Report, she noted that, "A child's learning is a function more of the characteristics of their classmates than of those of the teacher" (2016). His research also paved the way for what educators know today as the "achievement gap". This ideology of external factors being the strongest influence on student achievement raged on for fifty years. That is, until Bandura (1993) turned the focus back on the role and power of the educator on positively impacting student achievement.

This chapter describes the development of the theory of collective teacher efficacy and its impact on student learning. The origins of the idea can be found in Bandura's Social Cognitive Theory (1977) and are further advanced in his idea of teacher efficacy, both individual and collective. Based on Bandura's foundational research (1977), Tschannen-Moran, Goddard, Woolfolk-Hoy et. al (1998), integrated and developed the models for collective teacher efficacy.

In Eells' 2011 meta-analysis, she proved that, "Collective teacher efficacy was found to be strongly and positively correlated with student achievement". Hattie (2017) further solidified Eells' meta-analysis by weighting the connection of collective teacher efficacy and its impact on student learning and achievement. In his research, Hattie found that collective teacher efficacy was the number one factor correlated with improving student achievement. In Donohoo's most recent book (2017), *Collective Efficacy: How Educators' Beliefs Impact Student Learning*, she establishes the groundwork for how educators and leaders can help foster collective efficacy.

In Figure 1 below, the reader will note a sequential review of the construct of collective teacher efficacy.

Figure 1. Chronological Flow Chart of the Development of Collective Teacher Efficacy
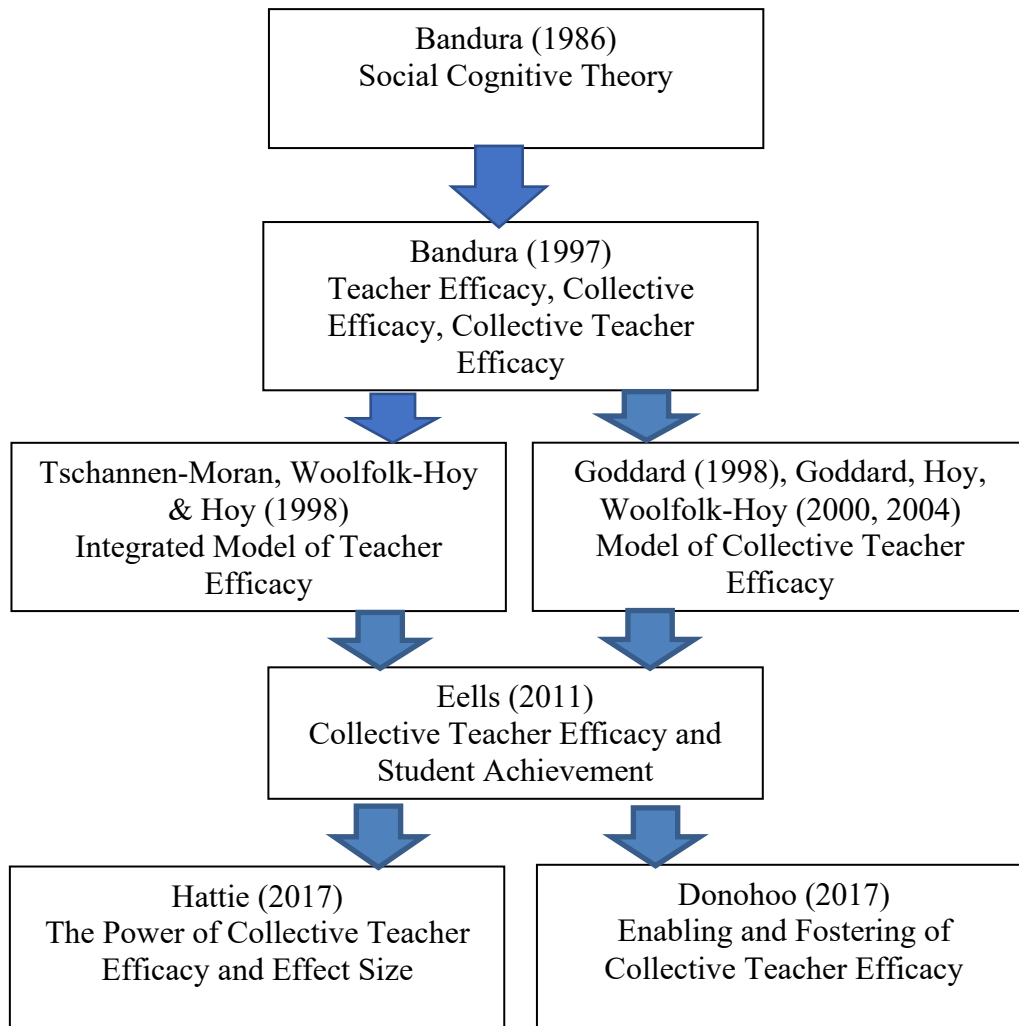
Source: Adapted from Eells, R (2011). Meta-analysis of the relationship between collective teacher efficacy and student achievement.

Coleman Report, 1966

      In the spring of 1966, James Coleman, a Johns Hopkins sociologist, was asked by the Commissioner of Education to conduct a survey within the context of the Civil Rights Act of 1964, Section 402. The purpose of this survey and report was to address the "lack of availability of equal educational opportunities for individuals by reason of race, color, religion, or national origin in public educational institutions" (Dickinson, 2016). Further, Coleman wanted to

understand outcomes, specifically, how well were kids learning, and what variables or factors were interconnected with student achievement. It was his Equality of Educational Opportunity report, the formal name of Coleman's study that would help answer, after a decade subsequent to *Brown v. Board of Education* (1954)*,* that segregation was still the norm in most schools. Additionally, his study found that, "the most important predictor of a child's performance in school…was based on a student's home life and family's educational background" (Dickinson, 2016). The report shed light on what would later become known as the "achievement gap". In his final reporting, Coleman dismissed the idea that it was the responsibility of the educator to ensure students were successful; rather his research looked beyond indicators of school quality or educators within the school system, as he stated that it was out of school factors, such as a student's family background or socio-economic status, that most influenced students' ability to achieve academically (Dickinson, 2016).

Social Cognitive Theory and Efficacy

Albert Bandura (1977, 1986, 1997) developed a unified theory of behavior change he coined the Social Cognitive Theory. The Social Cognitive Theory is concerned with human agency and the ways that people exercise a level of control over their own lives. Bandura advanced the components of the Social Cognitive Theory when he studied human behaviors and the environmental and personal factors that come into play to impact behavioral choices. He later altered the label of his theory from "social learning" to "social cognitive" to emphasize that cognition plays an important role in ones' ability to create reality, utilize self-regulation techniques, understand information, as well as perform behaviors (Pajares, 2002).

The Social Cognitive Theory roots itself in a view of human agency. This is an understanding that individuals are proactively engaged in their own development and can make

things come to fruition by their own actions (Pajares, 2002). Bandura's theory (1977) asserts that, "they are able who think they are able." Further, central to this theory is the sense of self-efficacy which is, "one's beliefs in their capability to make an impact and/or execute a course of action in order to produce a specific goal" (Goddard, R, Hoy, W., & Woolfolk-Hoy, 2000). This is a critical point, as one can have a high sense of self-efficacy in one area of their life, but a sense of low efficacy in another area. For example, someone who has found to be successful in the area of math will have a high sense of self-efficacy when working on math problems, but they may have always had a difficult time with reading comprehension. Because of these less than perfect experiences in the area of reading comprehension, this person would have a low sense of self-efficacy in the area of reading; thus, it is important to note that failures sometimes undermine efficacy (Bandura, 1977). This is the key element from his original assertions that becomes the primary construct of the concept of collective teacher efficacy.

If a group of individuals believe that they can make a difference and what's more, an impact in student achievement when they cohesively and collectively work together, then their work and focus will be on just that, student achievement. Furthermore, the Social Cognitive Theory extends to collective teacher efficacy as it is more likely that a group or the collective with the highest sense of efficacy will be able to transfer this sense of grit or persistence from their own lives to add value to their collective or team, for the improvement of student achievement (Goddard, R., Hoy, W., & Woolfolk-Hoy, A., 2000). Thus, schools with high collective teacher efficacy are also high-impact, student achieving places where all students have high expectations and learning gains for all is the norm. This is true because teachers who believe that they can influence student achievement and motivation are viewed as, "assuming

they can control the reinforcement of their actions" and therefore, are considered to have a high level of collective efficacy (Goddard, R., Hoy, W., & Woolfolk-Hoy, A., 2000).

Collective Teacher Efficacy and Student Achievement

Collective teacher efficacy refers to the "collective self-perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities" (Tschannen-Moran & Barr, 2004). Forty-five years after the Coleman Report (1966) was published, Rachel Jean Eells conducted a meta-analysis of factors that impact student achievement. Her study, titled *Meta-Analysis of the Relationship between collective teacher efficacy and Student Achievement* was later published in 2011. The construct of collective teacher efficacy in Eells' study is an intangible factor present in a school's culture that is tricky to measure directly in contrast to Coleman's socio-economic factors that he identified as impacting student achievement. However, according to Eells' current research, if this intangible factor of Collective teacher efficacy is prominent at school sites, tangible results are evidenced by student achievement (2011).

After Eells' research was published, John Hattie, educational researcher and Director of the Melbourne Educational Research Institute at the University of Melbourne Australia, formalized that the construct of Collective Teacher Efficacy (CTE) was the "new number one" variable associated with student achievement, boasting collective teacher efficacy as having a positive "effect size of 1.57". Effect sizes show the relative impact of factors or variables on a specific concept, strategy, or situation; an effect size of 0 reveals that the influence or variable had no effect. The larger the effect size, the more powerful the influence of that factor or variable. Hattie (2009), prior to this research, suggested that an effect size of 0.2 is relatively small, an effect size of 0.4 is medium, and an effect size of 0.6 is large. Therefore, correlating

collective teacher efficacy, with a positive effect size of 1.57 is significant as it proves to be two times greater than the variable of feedback and three times greater than the effect of classroom management. In addition, when the variable of collective teacher efficacy is elevated, the negative effects of socio-demographic aspects, that Coleman mentioned were highly related to student achievement, are reduced three-fold (Hattie, 2018; Ramos et., al 2014). Therefore, when collective teacher efficacy is fostered at a school site and a team of individuals share the belief that their unified efforts can overcome any obstacle or challenge that a student may figuratively or literally bring with them, students will achieve no matter the obstacle or barrier.

Table 1, below, displays some of the factors that influence student achievement and their effect sizes.

Table 1. Edited list of Hattie's 2018 Effect Sizes Related to Student Achievement

Influence	Effect Size
Collective Teacher Efficacy	1.57
Feedback	0.75
Prior Achievement	0.65
Socio-economic Status	0.52
Positive Family/Home dynamics	0.52
Parental Involvement	0.50
Homework	0.29
Reducing class size	0.21
Different types of testing	0.12
Charter schools	0.09

Source: Adapted from Hattie, J (2018). Hattie's 2018 updated list of factors related to student achievement: 252 influences and effect sizes (Cohen's d).

Enabling and Fostering of Collective Teacher Efficacy

      According to Donohoo (2017), collective teacher efficacy refers to, "the judgments of teachers in a school that the faculty as a whole can organize and execute the courses of action required to have a positive effect on students" (p 3). The notion of collective teacher efficacy is not a new concept; in fact, this theory can be traced back to more than two decades ago, when Albert Bandura was the first to generate interest in this area by demonstrating that the effect of perceived collective efficacy was stronger than a students' socio-economic status or background (Donohoo, 2017). Moreover, collective teacher efficacy impacts student achievement, because when individuals believe they can accomplish a task, they do. These beliefs further then drive educators' actions to an almost, "by any means necessary" mindset. This translates to the reality that educators who have a high sense of collective teacher efficacy are more likely to be: open to new instructional strategies to help engage reluctant learners; persist and continue to push disengaged students, and because of these tangible effects due to the intangible construct of collective teacher efficacy, these collective groups of teachers and schools typically yield high-impact student achievement, despite a students' home environment, prior achievement, or parental involvement (Donohoo, 2017; Goddard, R., Hoy, W., & Woolfolk-Hoy, A., 2000).

      Furthermore, according to Eells' meta-analytical research in 2011, the connection between collective teacher efficacy and student achievement is now more important than ever, especially as districts continue to have low-performing schools year after year. Collective teacher efficacy research suggests that confidence in collective ability is contagious, and that, if planning room conversations revolve around successes, overcoming obstacles, and opportunities to make a difference, then the culture of the faculty will be that of a high sense of collective teacher

efficacy, and students will make learning gains, no matter what they bring or don't bring to the table (Eells, 2011).

Further, research states that rather than leaving it to chance, the most effective way to improve student and overall school achievement and performance, is to strengthen collective teacher efficacy (Donohoo, 2016). In order to strengthen efficacy, leaders must be willing and able to grapple with three critical dimensions as they create a culture of collective teacher efficacy: first they must create structures and processes for teachers to engage in meaningful collaboration; next leaders must promote teacher leadership and extend teachers' decision making power; and finally, leaders must build an awareness through vicarious and mastery experiences that collective teacher efficacy is the number one factor that can positively influence student achievement (Donohoo, 2017).

According to Donohoo (2017), when educators engaged in continuous learning, then student learning is improved (p 51). For collective teacher efficacy to take root at a school site and among a collective group of teachers, staff, and administrators alike, personnel need to be provided and engage in purposeful professional learning opportunities. Structures and processes need to be in place for educators to come together, collaboratively, to solve problems of practice together. According to Newmann et al., teachers and administrators need time, during the instructional day, and spaces, conducive to learning, where they can meet regularly; time in which to collaborate was an organizational factor found to contribute to increase efficacy (1989).

In a 2016 study in a Pennsylvania school district, Rachael Barger-Anderson, Robert S. Isherwood, and Joseph Merhaut further found the benefits of teacher collaboration and its impact on collective teacher efficacy. Before the study, teachers were isolated and were working independently. However, after staff was brought together for daily time to collaborate

purposefully, instruction improved, and teachers were able to expand on their "teaching toolkits" as they now had access to more resources. Their lessons were more consistent, and because of these factors, academic rigor shot up, collective teacher efficacy improved, and student achievement was increased (2016).

It is critical to note, that although collaboration is one of the keys that positively enhance collective teacher efficacy, there are also pitfalls that occur as a result "group think". Katz, Earl, and Ben Jaafar (2009) identified, "psychologically grounded dangers of the collective including diffusion of responsibility and sameness trumping diversity. Therefore, having protocols will help structure conversations in ways that teams will maintain objectivity and focus" (Donohoo, 2017). Moreover, as teachers are introduced to processes that support, "joint-work and aid in addressing challenges related to learning, leading and teaching" purposeful collaboration and thus collective teacher efficacy will grow (Donohoo, 2017).

According to Goddard, Hoy and Woolfolk-Hoy's (2004) research, advancing teacher influence, thus empowering staff to share leadership, is another factor that contributes to positive collective teacher efficacy. Goddard, Hoy, and Woolfolk-Hoy (2004) note that, "where teachers have the opportunity to influence important decisions, they also tend to have stronger beliefs in the conjoint ability of their faculty" (p.10). In a recent Education Week article, Lynch (2012) shared that leaders need to build teacher leadership capacity in order to help foster the construct of collective teacher efficacy; teachers and staff need to believe that they too have the power to shape leadership decisions. Although advancing teacher influence requires "risk-taking and a strong belief in empowerment over efficiency, choice over decisiveness, and autonomy over control", it is a must as it empowers teachers and gets them to buy in to a culture that promotes high expectations for all. Involving teachers in the decision-making process is a non-negotiable

factor to fostering collective teacher efficacy (Donohoo, 2017). Not only will teacher participation in decision- making amplify commitments to decisions made, but efficacy and motivation to carry out these school-based, student-centered decisions, will be that much more prominent.

Finally, in order to arrive "full circle" with the implementation and fostering of Collective Teacher Efficacy, teachers need to go through vicarious and mastery experiences that both create awareness and validate the power and impact of collective teacher efficacy on student achievement. According to Bandura (1977), "people can develop high or low efficacy vicariously through other people's performances." As a staff works collaboratively and are provided with opportunities to advance their influence, they will have the opportunity to see the improvements in student academic success and thus, collective teacher efficacy will continue to strengthen. These vicarious and mastery teacher experiences will promote and develop the belief and understanding that, "students weren't born without curiosity or motivation or the desire to learn"; rather that these barriers that students bring with them are not their fault. Ultimately, teachers will understand that teacher efficacy, not these factors, is going to be what impacts student achievement (Brown, 2018). According to Tschannen-Moran et al., (1998), "models of successful teachers are the basis for deciding that the tasks are manageable and that resources are adequate. Watching others in skillful ways- especially observing admired, credible and similar models- can affect the observer's personal teaching competence" (p. 230). Thus, for staff to develop collective teacher efficacy they must grow through vicarious experiences that validate and support the theory and then see themselves as successful. By watching others succeed and then experiencing it themselves, this will in effect, build efficacy beliefs (Eells, 2011). Moreover,

"some of the most powerful influences on the development of teacher efficacy are mastery experiences…" (Protheroe, 2008).

When discussing enabling factors for fostering collective teacher efficacy and positively impacting student achievement, the unavoidable fact that one variable relates to the next must be considered even though we are able to separate variables from another when they're intertwined, through statistical analyses. Even Coleman in his 1966 report, mentioned the problem he ran into in his study; he referred to this problem as "multicollinearity" and it means that "all the variables are related to one another" (Dickinson, 2016). When considering the concept of collective teacher efficacy, all these enabling conditions are pre-requisites to the fostering of this intangible element that has the number one influence on student achievement. Hattie (2015) noted that "there is no way that a system will make an overall difference to student achievement by working one at a time (p.5); there is something powerful about the collective responsibility.

Figure 2 displays the enabling conditions needed in order to foster the construct of collective teacher efficacy, developed by the authors.

Figure 2. Enabling Conditions for Collective Teacher Efficacy (CTE)
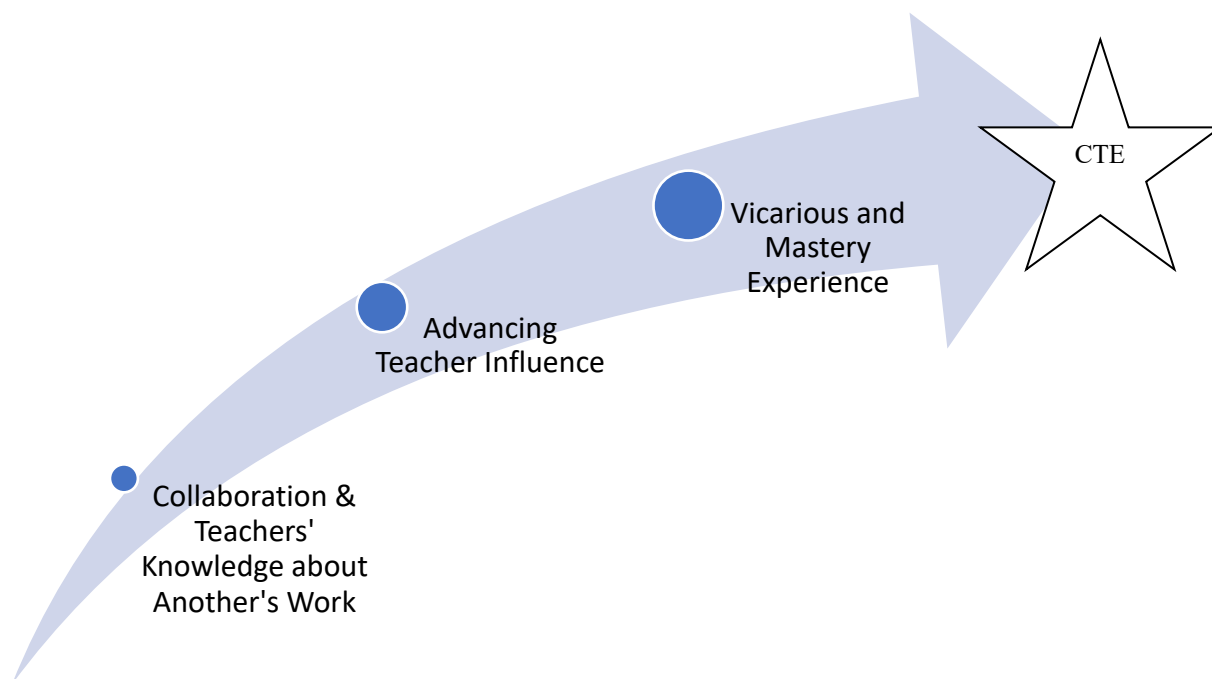
Barriers to the Implementation of Collective Teacher Efficacy

According to Fullan and Quinn (2016), "groups are powerful, which means they can be powerfully wrong. Getting together without discipline and specificity of collective deliberation can be a grand waste of time!" It takes people time to process, weigh, and integrate diverse sources of information, concerning their ability (Bandura, 1977). Thus, collective teacher efficacy does not happen overnight. It is only after strong efficacy expectations are developed, through repeated success, that the negative impact of either teacher or student failures is (likely) to be reduced (Bandura, 1977). Thus, lead learners need to make the implementing and fostering of Collective Teacher Efficacy a priority at the very start of the year, if they want to reap the benefits. And what' more, educators need to understand that it will take time for collective teacher efficacy to establish. Further the realization that even if the collective efficacy at their site is currently under disarray, these beliefs are malleable, however they do require a concerted and substantial effort to change (Donohoo, 2017).

Moreover, it is also important to note that in schools with low-income and minority populations, it is that much more critical to nurture the construct of collective teacher efficacy (Brown & Medway, 2007). Research suggests that at these school sites, positive relationships among staff and students appear to be "even more salient"; and that "taken together, relationships among staff and student, along with collective teacher efficacy and the ability to move a group into believing that they can achieve no matter what, will result in high student academic achievement (Brown & Medway, 2007). This holds true as at many low income, high minority populations are more high-energy, are typically more stressful, and there are more needs at these sites. No matter, once educators foster trust, cooperation, and openness amongst each other, essentially, collective teacher efficacy, student achievement will be tangible for all (O'Brennan, L., Bradshaw, C., & Furlong, M., 2014).

Hoy, Sweetland, & Smith (2002) state that, "It is easier to change the collective efficacy of a school than it is to influence the socioeconomic status of the school." Despite the research that proves collective teacher efficacy is the number one factor influencing student achievement, not a lot of research is available currently that discusses the obstacles educators face when implementing and fostering this intangible construct of collective teacher efficacy.

Rationale

According to The Center for Comprehensive School Reform and Improvement (2007), because there is not a failsafe set of steps that school leaders can take to improve collective teacher efficacy, combined with Bandura's (1993; 1977; 1994), Donohoo's (2017; 2018) and Hattie's (2009; 2015; 2018) research that indicates that collective teacher efficacy is the critical piece missing from school improvement efforts, the researchers will develop and evaluate an *Educational Leader's Guide to Collective Teacher Efficacy*. After its development, the guide will

be assessed by educational leaders in the field. Feedback will be solicited to determine what are potentially the most and/or least effective "best practices" when implementing the conditions needed to foster collective teacher efficacy listed and what impediments can be identified that will hinder implementation by leaders. The evaluators will position their work around a theory-based evaluation which is an approach, according to Mertens and Wilson (20212) that focuses on the theories people have about what it takes to have a successful program, as well as people's beliefs about what is actually needed in order for a program to find success.

The goal will be for educational leaders to utilize this guide to help them implement collective teacher efficacy at their sites, so that future directions may be determined.

CHAPTER III

METHODOLOGY

Due to the fact, that just 44 percent of teachers reported being satisfied with their teaching jobs (Richmond, 2012), school administrators and district leaders should turn their attention to improving collective teacher efficacy (CTE) at their sites as it has an impressive list of positive outcomes such as: improvement of student performance, amelioration of the negative effects of low socioeconomic status, enhancement of parent and teacher relationships, and creation of a work environment that builds teacher commitment to the school (Donohoo, Hattie, & Eells, 2018).

Furthermore, research has indicated that collective teacher efficacy (CTE) is the "new number one" variable associated with student achievement, boasting collective teacher efficacy as having a positive "effect size of 1.57". Despite knowing this information, there were no defined ways, developed systems, nor leader guides on how to implement this intangible construct, only Donohoo's snapshots of what was present on campuses with high CTE. Thus, the researchers developed a guide that was surveyed by school leaders in order to further expand the knowledge and implementation efforts supporting collective teacher efficacy within schools.

This chapter will focus on the research design and study procedures. It begins discussing the philosophical and theoretic lens of the study; next the Evaluand its context of the study will be examined; third the method and design; fourth the population and sample; fifth a description of data collection and instruments used; sixth a description of data collection and procedures; and seventh assumptions will be scrutinized. The chapter concludes with a review of ethical considerations such as: the risks and benefits of the study; limitations; and delimitations.

Philosophical and Theoretical Lens

The evaluators situated their work in two social theoretical frameworks and lenses. First, in order to understand how the construct of collective teacher efficacy works, they studied Albert Bandura's social cognitive theory. This theory revolved around the central idea that humans have control over their lives through agentive actions (Bandura, 1997). Furthermore, research suggested that the social cognitive theory helped to explain that the choices one makes are strongly influenced by collective efficacy beliefs; this meant that efficacy beliefs are so powerful that they may guide ones' actions and behaviors (Goddard, Hoy, & Hoy, 2001). Moreover, if an educator believed that they have little influence on student achievement, then it will be filtered and manifested into their practice, and vice versa (Donohoo, 2017).

Secondly, as the researchers looked to develop a CTE guide that administrators could implement at their school site, they further reviewed the social science theoretical framework known as theory-based evaluation. According to Mertens and Wilson (2012), this approach focuses on the theories people have about what it takes to have a successful program and consists of stakeholders' beliefs about what is needed for programs to be successful.

The Evaluand and Its Context

The Evaluand, the collective teacher efficacy guide, was a demonstration program for educational leaders to further implement and foster the construct of collective teacher efficacy. The goal of the guide was to provide educational leaders with research-based systems that instructed leaders on how to create a culture with a high-sense of collective teacher efficacy, which would eventually improve teacher instruction, a positive school culture, and overall increase student success.

Method Purpose

The researchers used a case study design to better understand the barriers administrators face when attempting to effectively promote and enable collective teacher efficacy, as well as discovering the type of guide that would best assist leaders with their implementation. Because the researchers were interested in making sense of the phenomenon known as collective teacher efficacy, they chose to conduct this case study approach.   According to the Heale and Twycross (2018), when conducting an intensive, systematic investigation of a group, in which the researchers examine in-depth data relating to several variables, a case study was the most appropriate methodology. The researchers answered the following research questions:

1. What impediments/obstacles exist that prohibit a leader's ability to effectively foster and enable collective teacher efficacy?

2. What resources are available at the school/district site to impact (or affect) collective teacher efficacy?

3. What type of guide would assist leaders in implementing and sustaining collective teacher efficacy?

Likewise, because the researchers developed a guide for current educational leaders to evaluate and to help address their research questions, they used surveys and semi-structured questions within the surveys to determine if the guide created was beneficial for implementing collective teacher efficacy. Further, the case study approach helped further examine the complex phenomena of collective teacher efficacy.

Moreover, the surveys conducted provided the researchers with additional knowledge about the impact of collective teacher efficacy by examining the implementation of CTE strategies or lack thereof by educational leaders in school settings and the obstacles

administrators face in facilitating implementation. The focus was on the connection between theory and practice, taking into consideration the potential obstacles and research-based systems in the researchers' guide in order to bring CTE into schools with a focus on improved student achievement as well as teacher and administrator job-satisfaction.

Population and Sample

According to BallotPedia (2019), there were 176,537 teachers in public schools in South Florida with approximately 2,700,000 students enrolled. According to the data, there existed roughly one administrator for every 327 students; this was compared to the national average of one administrator for every 295 students.

The researchers chose to implement purposive sampling to select their participants for this study. According to UCONN (2019), purposive sampling in a study is selected, "because the subjects who are selected are chosen because of who they are and what they know, rather than by chance."

The study sample was composed of volunteer, self-selected assistant principals, principals, and school leaders from the South Florida area, and ranged from private and public schools. The researchers gained access to these self-selected participants by sharing via email (Appendix A) an "appeal for help"; the communication also included the purpose of the guide evaluation. The researchers gained access to emails from a South Florida university's College of Education, doctoral program. The rationale of using these participants was because those enrolled or graduated from an education program should have extensive experience within the school setting. Furthermore, it provided the researchers with the opportunity to survey a diverse sample from varying areas, as opposed to a specific district or public or private entity.

The study used the diverse perceptions and feedback of the volunteer respondents to obtain information related to the obstacles they face implementing collective teacher efficacy and their ability to foster and enable collective efficacy within their organization using the created guide as a basis for their evaluation.

Procedures

According to the authors Heale and Twycross (2018), case study methodology provides researchers with an in-depth understanding of a phenomena; specifically, in this study, the construct known as collective teacher efficacy. Further, the data collected in this case study involved both quantitative and qualitative datasets. Collecting both datasets provided the researchers an opportunity to gain a more in-depth insight into collective teacher efficacy.

In this study, surveys and a semi-structured question within the survey were used to gather data. Based on Bandura, Hattie, and Donohoo, an *Educational Leader's Guide to Collective Teacher Efficacy* was created and distributed to participants identified from a South Florida college of education doctoral program.

The researchers received approval from the South Florida college IRB in order to obtain access to these emails, as well as the Dean from the College of Education. Once approval was received and emails were obtained, the researchers sent a communication including the "appeal for help" and call to action (Appendix A). Within the email, if participants agreed to be a part of the program evaluation, they clicked on the SurveyMonkey link that took them directly to the Consent Form (Appendix B).

Once self-selected participants acknowledged the Consent Form, their initial demographic survey (Appendix C) was released. This survey consisted of four questions. After this, participants received access to the guide (Appendix F) created by the researchers via a direct

link embedded in the survey, and once reviewed the participants were able to complete the survey questions that followed to assess the effectiveness of the guide (Appendix D; Appendix E) as well as respond to the final semi-structured question in which participants identified potential barriers to their ability to foster and enable collective teacher efficacy (Appendix E). This final question lent the opportunity for the researchers to determine themes that align to the research questions, specifically the first and second question, regarding obstacles that exist that prohibit a leaders' ability to enable CTE and what type of guide would assist leaders in implementing and sustaining CTE, respectively.

Once self-selected participants completed the surveys, and clicked submit, the surveys were sent to the researchers' email. Furthermore, the benefits derived from the use of surveys in this study was an attempt, as Jick (1979) says, "to exploit the assets and…neutralize the liabilities" (p. 604) found in these methods. Furthermore, the use of the semi-structured question for studies in education was recommended by Borg and Gall (1983) because it, "provides a desirable combination of objectivity and depth and often permits gathering valuable data that could not be successfully obtained by any other approach" (p. 442).

Data Collection

Data collection consisted of qualitative and quantitative measures, including three distinct surveys, all embedded into one larger survey on SurveyMonkey: a demographic survey (Appendix C) , a quantitative survey of the guide with a semi-structured question at the end of the survey (Appendix D; Appendix E) , and a semi-structured question of barriers foreseen by participants implementing CTE (Appendix E).

Furthermore, the survey questions were on a Likert, scale ranging from "strongly agree" to "strongly disagree". Questions self-selected participants answered in the surveys included:

The Education Guide demonstrates the potential impact of collective teacher efficacy; The Education Guide provides strategies and systems that I can use to support collective teacher efficacy; The Education Guide is concise and easy to access; and a semi-structured question will follow at the end, asking participants to share what they feel is hindering their ability to foster collective teacher efficacy at their site(s).

The survey questions were used in this study to gather data from school leaders about the guide in order to answer the research questions. Themes arose from the analysis and assertions obtained from the semi-structured question within the survey as well. Moreover, the surveys were critical because the focus of the research was to identify practices that leaders can utilize to convert theory to practice and obstacles identified on their campuses that prohibit their ability to foster CTE. Ultimately, the survey data from the self-selected school leaders made it possible to refine the product with the insight and experience of professionals within the field of education and depending on the results, the data analyzed highlighted future research opportunities for those in the field of education research.

Data Collection Procedures

The data collection procedures used in this study were primarily the survey distribution and collection through the purposive sampling of participants. The self-selected school leader surveys were sent via email to a minimum of 50 administrators between June 2019 through August 2019 and the total amount of questions shared was 20. The survey was conducted via the SurveyMonkey system, and confidentiality was implemented as IP addresses were not made available to the researchers, and participants were not asked for their names on the survey they were asked to complete.

Once data was collected, and the researchers found that participants may not have completed the survey in its entirety, the information was not recorded in the researchers' findings. Further, within the Consent Form, the researchers' contact information was included. If at any point a self-selected participant wanted to "opt-out" and retract their survey responses, they were given the opportunity to do so, without penalty.

Data Analysis

The researchers collected both quantitative and qualitative datasets to gain an in-depth insight into collective teacher efficacy. Themes arose from the analyses and statements participants shared in the semi-structured questions found within the survey. Data analysis based on the Likert scale surveys was also conducted to help evaluate the researchers' guide on collective teacher efficacy.

As data sets were analyzed, they were analyzed separately, and then, they were compared. For the purposes of the semi-structured question found within the survey, once codes were identified, themes were derived relating to the barrier's administrators faced regarding implementation of collective teacher efficacy, then those themes were documented in the researchers' findings. Further, the Likert survey questions were easily quantified as they were rated "strongly agree" to "strongly disagree". Participant answers were tallied by the SurveyMonkey system and percentages were formulated based on answers to determine the guide's overall rating for each question.

This case study and the data analysis helped the researchers better understand the phenomenon of collective teacher efficacy; the methodology served to provide the framework for evaluation and analysis of this complex construct and helped shine a light on the holistic nature

of educational leaders' practices to offer a perspective that will potentially inform improved

teacher morale, job satisfaction for all, and above all, student achievement and success.

Ethical Considerations

   Since the survey was online, it was anonymous. At no point did the researchers'

surveys request the self-selected participants to identify their names nor specific work locations.

Aside from participants completing a consent form before they sat for the survey regarding the

guide developed by the researchers as well as discussing what they felt were obstacles to

fostering collective teacher efficacy, their names were never requested nor would they be

disclosed, nor the IP addresses from which they completed their online SurveyMonkey survey.

If at any point a participant wanted to remove themselves from the study, they had the right to

stop and exit the survey or they could choose to not hit the "complete/send" button at the end of

the survey. The researchers realized that participants were only comfortable with providing

honest feedback if they knew that their responses could not be traced back to them; thus, the

researchers used the SurveyMonkey system that allowed for strictly anonymous responses. Also,

the researchers chose the option in the SurveyMonkey system, that would, "not disclose the

participants IP address" as those are often indicative of a particular geographic location from

where the online survey was being completed; doing so would further provide the participants

with increased anonymity. The surveys would remain private; thus, the public would not have

access to the survey results on SurveyMonkey. Furthermore, data was secured on the

researchers' flash drive and will be kept secure in a file cabinet that requires a key. The data will

be kept for five years; after which it will be destroyed.

Limitations

Although the participant survey and semi-structured question were used to validate the product's effectiveness as well as to understand the obstacles or impediments that exist in schools that prohibit a leader's ability to effectively foster and enable collective teacher efficacy, this study was subject to the limitations characteristic of survey research in general. The possibility of over-rater or under-rater bias and the tendency for respondents to have agreed with positive statements is acknowledged as the survey guide questions are on a Likert scale of "strongly agree" to "strongly disagree". Further, those completing the survey may answer questions that they think the researchers want to hear as opposed to answering the questions truthfully or how they really feel or think. On the semi-structured questions answered by the participants, the researchers coded the responses by programming the answers with the themes that emerge from the data.

Furthermore, a limitation found when coding and analyzing themes from the participants' semi-structured question may be that the sheer volume of data may be difficult for the researchers to organize. The data analysis and integration strategies were carefully thought through. Also, the feedback on the ability to effectively implement collective teacher efficacy was also based on the guide created for this study, and therefore the quality of the guide was taken into consideration as a possible limitation to leader expectations. Finally, because all participants surveyed have attended one educational leadership program, the study may not be generalizable. However, the intent of the study was to receive feedback to improve the researcher's guide.

Risks and Benefits

The risks for this study were minimal as participants could stop at any point in completing their survey. The benefits included that participants should be happy to share their experiences and expertise; and participants could find that the guide would be beneficial to their school site or site they support; and the researchers could also be able to answer their research questions to help future studies examine in depth how their district offices may play a larger role in implementing and supporting collective teacher efficacy, district-wide.

Additionally, because the researchers sent the survey out via a South Florida university's email database, those participating in the survey process had a first-hand opportunity to be a direct part of the CPED experience and product evaluation. Self-selected participants could become more familiar with this process for their own research benefit as well.

Summary of Problem and Significance

With teacher satisfaction dropping to the lowest level in twenty years, it is evident that educational leaders need to turn their attention to school reform and improvement efforts, of which collective teacher efficacy has been dubbed the number one variable to improve not just student achievement, but is also associated with positive factors including greater teacher job satisfaction (Donohoo, 2018). Research has made it abundantly clear that staff with a high sense of collective efficacy not only take on the responsibility for student success, but in addition, staff puts forth a greater effort and persistence, are more likely to try new teaching approaches, and foster an environment that is student-centered. With all of these positive factors resulting from CTE, teacher morale increases, and job satisfaction is inevitable (Donohoo, 2018).

CHAPTER IV

FINDINGS

The focus of the research was to identify potential obstacles that exist at school sites that prohibit a leader's ability to effectively foster and enable collective teacher efficacy, examine if the resources provided in the guide, that was developed by the researchers, was effective, and to ultimately convert theory into practice so leaders are able to foster and implement collective teacher efficacy in their building.

The case study conducted utilized both quantitative and qualitative data through three distinct surveys, embedded into one on SurveyMonkey. This survey assessed demographics of participants, assessed the effectiveness of the guide, and identified of barriers that inhibit the implementation of collective teacher efficacy by school leaders including the semi-structured question that allowed participants to identify barriers specific to their situation that might not have been identified within the survey.

After receiving the email list from the South Florida university's college of education that was approved by the researchers IRB, there was a total of 72 potential participants. The survey was sent out to all 72 school leaders a total of 3 times, all within 2 weeks at a time. The initial communication was sent out on August 2, 2019; the second on August 16, 2019; and the third request was sent on September 1, 2019. The researchers were able to capture 28 school leaders who completed the entirety of the survey on SurveyMonkey, a completion rate of 38.8%.

Survey Results: Demographic Breakdown

After review of the initial demographic portion of the survey, the participants were identified as a mix of assistant principals, principals and "other". Figure 3 below is the breakdown from SurveyMonkey with the responses.

Figure 3. Demographic SurveyMonkey "Current Role" Response

ANSWER CHOICES		RESPONSES	
▼ I am an Assistant Principal (3-5 years)		3.57%	1
▼ I am an Assistant Principal (6-10 years)		28.57%	8
▼ I am an Assistant Principal (11 years or more)		14.29%	4
▼ I am a Principal (0-5 years)		10.71%	3
▼ I am a Principal (6-10 years)		7.14%	2
▼ I am a Principal (11 years or more)		3.57%	1
▼ Other (please specify)	Responses	32.14%	9
TOTAL			28

The 9 participants who chose "other" for their current role in education, the responses were as follows: 1 educator for mental health and substance abuse; 1 health care educator; 1 District Administrator; 1 academic coach; 1 elementary classroom support; 1 department chair leader; 2 teachers; 1 assistant dean and professor.

Moreover, of the 28 participants, 15 identified as white; 3 identified as African American; 8 identified as Hispanic; 1 identified as Asian; and 1 identified to be bi-racial. All participants responded to this question. Figure 4 below the reader will review the SurveyMonkey responses.

Figure 4. Demographic SurveyMonkey "Race" Responses

ANSWER CHOICES	RESPONSES	
▼ I am white.	53.57%	15
▼ I am of African American descent.	10.71%	3
▼ I am of Hispanic descent.	28.57%	8
▼ I am of Asian descent.	3.57%	1
▼ I am of American Indian descent.	0.00%	0
▼ I am bi-racial.	3.57%	1
▼ I prefer not to respond.	0.00%	0
TOTAL		28

Regarding participants' place of work, 3 noted that they were rooted in the Broward County area, and the remainder 25 participants coded that they worked in the Palm Beach County area.

The last demographic question consisted of the level/role at their place of work; 3 noted that they worked at an elementary school (K-5); 1 worked at a middle school (6-8); 18 noted they were at a high school (9-12); 1 was at a K-12 wrap around school; and 5 noted as "other", listing District office as their place of work. Figure 5, found below, are the direct SurveyMonkey results regarding this final demographic question.

Figure 5. Demographic SurveyMonkey "Current Role" Responses

ANSWER CHOICES	RESPONSES	
Elementary school (K-5)	10.71%	3
Middle school (6-8)	3.57%	1
High School (9-12)	64.29%	18
K-12 wrap around school	3.57%	1
Other (please specify) Responses	17.86%	5
TOTAL		28

Of the five school leaders who chose "other" the responses were: 1 business; 1 volunteer work; 1 K-12 including alternative education site; 1 higher education; and 1 university.

Survey Results: Barriers Identified

The result of the quantitative analysis of the barriers that exist, addressing the first research question of: what impediments or obstacles exist that prohibit a leader's ability to effectively foster and enable collective teacher efficacy were answered in questions 16-23 in the survey. According to Darling-Hammond and Gardner (2017), "…even the best-designed
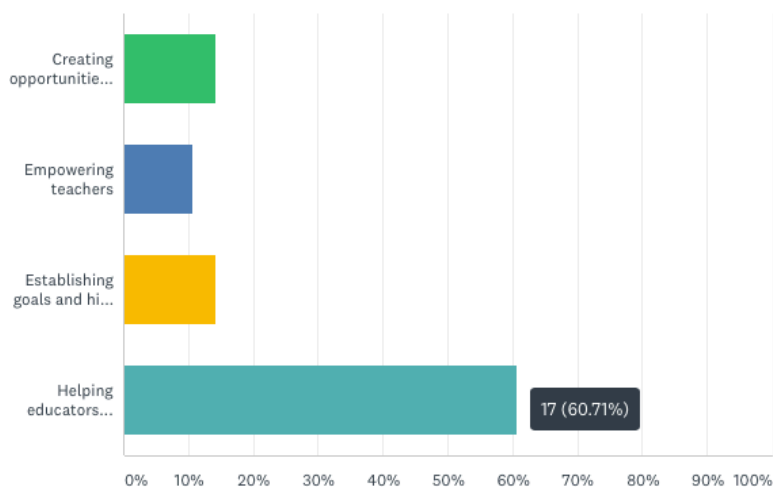
professional development may fail to produce desired outcomes…due to barriers such as:
inadequate resources, lack of shared vision, lack of time, failure to align state and local policies,
and dysfunctional school cultures." They recommend professional development standards, a
redesign of the use of time, developing teacher mentors and coaches, and providing flexible
funding. Participants answered 6 questions in this survey, relating to the following general
barriers of: lack of data or information, lack of support to implement strategies needed; lack of
time to implement strategies; lack of funding and/or resources; and lack of staff capacity. The
results for our survey were compatible with existing research identified.

According to the quantitative analysis, participants noted that due to the barrier of "lack
of data and/or information" 60.7% of them feel that they cannot help educators interpret results
and provide feedback to their students. Figure 6, below, will disclose school leaders' responses
on this first question.

Figure 6. CTE Barriers SurveyMonkey Response to "Lack of Data"

Further when looking at the second barrier, "lack of support", 57% of participants were unable to establish goals and high expectations with their students. Figure 7, below, will disclose school leaders' responses on this particular barrier.

Figure 7. CTE Barriers SurveyMonkey Response to "Lack of Support"

I have a lack of support to implement this strategy:

Answered: 28   Skipped: 0

Establishing goals and hi... — 16 (57.14%)
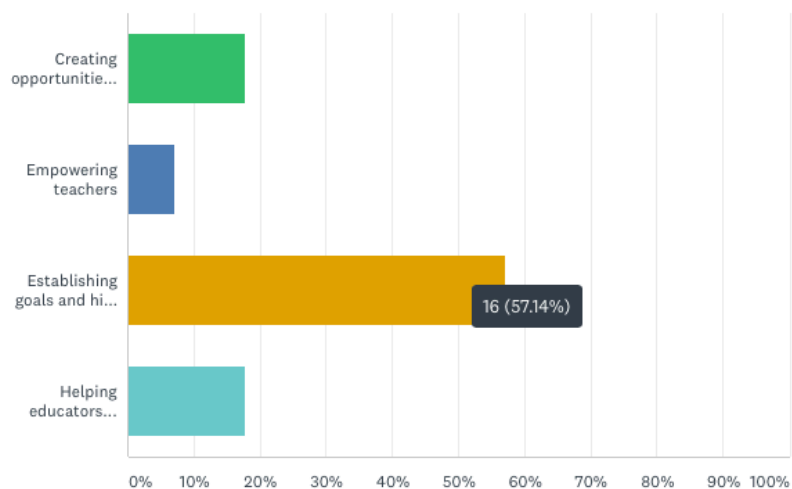
The third barrier listed consisted of having a "lack of time", and because of this 92.5% of participants were unable to create opportunities for meaningful collaboration for their staff, thus unable to effectively promote collective teacher efficacy in their building. Figure 8, below, will disclose school leaders' responses on for not having enough time.

Figure 8. CTE Barriers SurveyMonkey Response to "Lack of Time"

I have a lack of time to implement this strategy:

Answered: 27   Skipped: 1
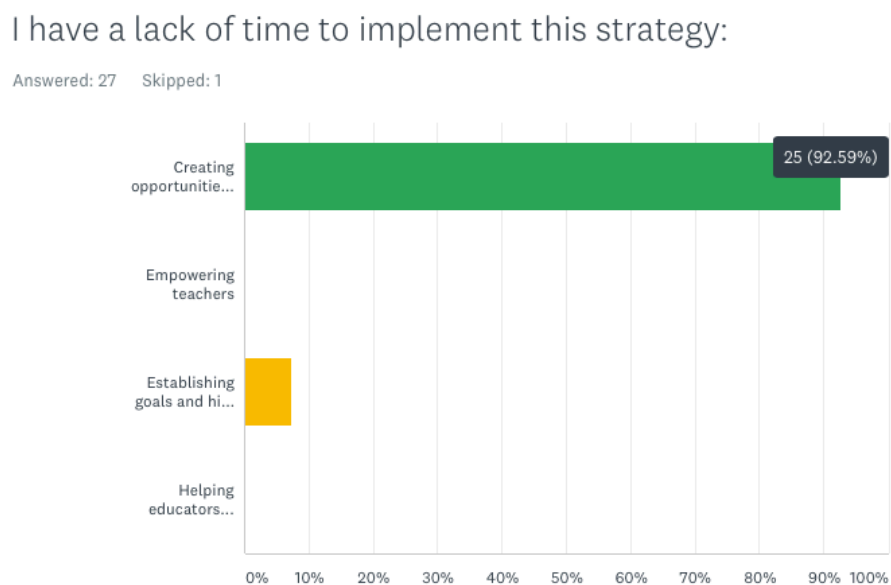
Because of the "lack of funding and/or resources" barrier, 51.85% of participants were unable to empower their teachers. Figure 9, below, will disclose school leaders' responses on for not having enough funding in order to support and promote a culture of collective teacher efficacy.

Figure 9. CTE Barriers SurveyMonkey Response to "Lack of Funding"

I have a lack of funding and/or resources to implement this strategy:

Answered: 27   Skipped: 1
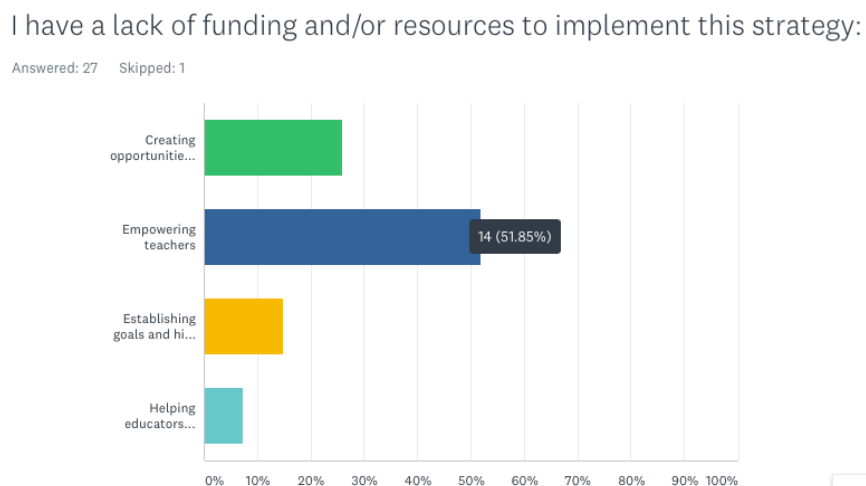
And, due to the "lack of staff capacity" barrier, 59.26% of participants also stated they were unable to empower their teachers. Figure 10, below, will disclose school leaders' responses on for having a lack of capacity within their personnel.

Figure 10. CTE Barriers SurveyMonkey Response to "Lack of Staff Capacity"

I have a lack of staff capacity to implement this strategy:

Answered: 27   Skipped: 1
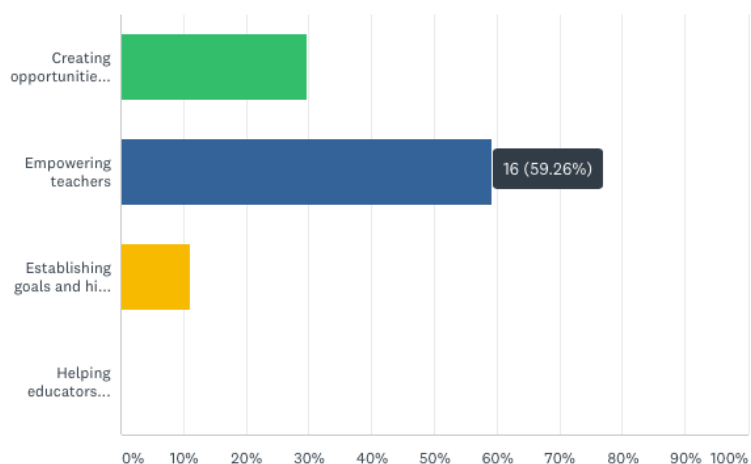
Survey Results: Effectiveness of Guide

The results of the quantitative analysis of the guide, addressing research question number three, what type of guide would assist leaders in implementing and sustaining collective teacher efficacy, consisted of the eight questions. The first question asked participants if the guide, created by the researchers, clearly defined Collective Teacher Efficacy, and 75% of school leaders rated "strongly agree" with 14.29% rating at "agree".

The second question asked participants if the guide outlined the research-based nature of the data supporting Collective Teacher Efficacy, and 78.75% of school leaders rated "strongly agree", with the remaining 21.43% rating at "agree".

The third question asked participants if the guide demonstrated the potential impact of Collective Teacher Efficacy on student achievement, and 75% answered at "strongly agree" while 22% at "agree".

The fourth question asked if the guide demonstrated the importance of Collective Teacher Efficacy on stakeholders, and 72% agreed, and 25% chose "agree".

The next question asked if the guide stressed the importance of the leaders' role in developing Collective Teacher Efficacy, and 75% of participants chose "strongly agree" whole 25% chose "agree".

The following question asked school leaders if the guide developed by the researchers outlined the fostering conditions needed in order to implement Collective Teacher Efficacy, and 68% of participants rated this at "strongly agree" while 28% rated at "agree" and one participant (3%) rated at neither agree not disagree.

The next question asked if the guide was able to provide strategies and guidelines leaders could use to promote CTE and 68% rated at "strongly agree", 28% rated at "agree" and 1 self-selected participant rated at "disagree".

The final question asked school leaders if the guide provided adequate resources, and 65% shared that they "strongly agreed" with this question while the remaining 32% rated at "agree".

Survey Results: Thematic Analysis

The final question in the survey was the semi-structured question and it asked school leaders to briefly share what other factors, not listed, would or could prohibit a leaders' ability to implement and foster collective teacher efficacy. This last question provided the researchers with

data for potential educational academics to investigate for possible future research and development.

According to Maguire (2017), thematic analysis is the process of identifying patterns or themes within qualitative data. Moreover, the goal of a thematic analysis is to identify themes, for example, patterns in the data that are important or interesting. For the purposes of this research and thematic analysis, the researchers chose the semantic level of analysis which is, "within the explicit or surface meaning of the data and the analyst is not looking for anything beyond what a participant has said or what has been written" (Maguire, 2017).

Survey Results: Theme Exposed

For the specific analysis and theme that was exposed, the researchers first became familiar with the data. Because only 20 of the 28 participants provided their short answer response, and the responses were, in fact, less than 30 words each, and so the open- coding approach was used. According to Maguire (2017), open coding means that there are not any pre-set codes, but that codes are developed and modified through the actual coding process.

This data analysis provided the researchers to generate initial codes by organizing the information in a meaningful way. While the researchers did not code every piece of text, the open-coding process lent the opportunity for developing and modifying as themes as they progressed. The researchers worked through each participant's response, coding the segments of text that seemed to be relevant to two of the research questions, what type of guide would assist leaders in implementing and sustaining CTE as well as what impediments or obstacles exist that prohibit a leaders' ability to effectively foster and enable CTE before moving to the rest of the responses.

Because there was a small data set of 20 who responded to the last question, there was a substantial overlap between the coding stage and the stage where the researchers were able to identify the primary themes. Thus, the researchers were able to clearly fit the codes into the one main theme that was addressed 11 of the 20 times within the semi-structured answer portion of the survey.

The researchers' theme was predominately descriptive, meaning the described patterns in the data that was relevant to the research questions (Maguire, 2017). Table 2 below shows the theme that was identified, along with the codes that were associated with it.

Table 2. Themes Uncovered

Theme: District Leadership
- Autonomy without politics   - District initiatives (2 times)   - Inside politics or policies   - District goals (2 times)   - District alliances (3 times)   - District agendas   - District constituents

Findings and Recommendations

Overall, the *Educational Leader's Guide to Collective Teacher Efficacy* was rated effective at bridging the gap between existing research and practitioners. For the chosen markers identified in the survey, participants indicated that the guide accomplished its purpose of informing and supporting educational leaders. School leaders who completed the survey

determined that the guide successfully defined CTE and supported it with research-based evidence. The impact and importance of both CTE and the leader's role in developing it were also clearly established. Finally, participants decided that the fostering conditions for CTE, sufficient strategies and guides to support CTE, and adequate resources to implement CTE were also identified in the guide. In addition, this format could serve as an effective tool to duplicate for future attempts to bring the world of educational research to those working in the field to foster successful implementation.

Barriers to school leaders' ability to implement CTE were also clearly identified in our results. When participants analyzed the impact of barriers on the conditions favorable to CTE, they identified lack of time as a major barrier (92%) for creating opportunities for meaningful collaboration for their staff. Lack of data or information (60.7%) was clearly identified as an obstacle for helping educators interpret results and utilize data to provide feedback for their students. Additionally, lack of support was identified at 57% as a barrier for establishing goals and high expectations needed with students. Finally, both lack of funding and resources (57.85%) and lack of staff capacity (59.2%) were both identified as barriers that existed for the teacher empowerment required to support CTE in the educational setting. It is evident that identifiable barriers exist to implementing CTE at the school and district level for administrators. Future research should focus on what work needs to be done to both mitigate these barriers and increase support for administrators to both foster and enable CTE.

The final data collected presented an unanticipated barrier and a definite area for future research focus. While the literature states that collective teacher efficacy is the number one factor that can impact student achievement and school culture, there is nothing in the findings that mentions that district policies, alliances, or constituents are a barrier to promote and foster

collective teacher efficacy at a school site. Always trying to work from a place where students and their success should come above anything else, future research really needs focus on why school leaders' perceptions are making them feel as if district or area offices are not always working in their favor or with this belief. The documented results from this portion of our survey hit at the "core" of the power of collective teacher efficacy to impact student achievement which is the "belief" that change can be achieved by our direct actions. If school leaders indicate that they cannot succeed in implementing CTE with their staff due to their leadership, this flies in the face of the very research findings that foster and enable CTE at the highest level. If school leaders don't believe they are supported and empowered to make change and support CTE, then how can they convince teachers that they are empowered and able? Some of response statements to this section or our survey clearly articulate this problem or conflict of interest.

One of the participants shared, "this guide contains all the info and materials needed to implement a CTE environment. Based on the guide it's evident that CTE is the foundation for student achievement. I feel like District leadership may inhibit my ability to foster because of their external ties with their own personal obligations versus what is best for kids, staff, and a school's culture."

Another participant noted, "this guide is phenomenal. It's almost like a cheat sheet for fostering of CTE which is obviously the factor that has the most impact on student achievement. I foresee that while the guide is all inclusive with strategies etc. that District personnel, alliances, or goals don't always align with what is best for a school and sometimes what is best for kids."

A third school leader stated, "this guide is AMAZING!! Not only does it tell leaders what needs to be done but provides us with resources to help make CTE a strong force in schools. A factor not listed that may prohibit us from implementing CTE could be District initiatives. A lot

of times District leadership may have different goals or visions- some due to their constituents'

other times because they may not fully understand the culture of a particular school."

It was powerful to note that while there is much research on the positive impact of CTE

and how it is up to leaders to foster this construct, overall district leadership also needs to be

aware of the impact of CTE as well as understand how to support their principals, assistant

principals, and school leaders on implementing the fostering conditions that promote collective

teacher efficacy.

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APPENDIX A [EMAIL CONTACT]

E-mail Request to Participate in Guide Evaluation Survey

From: Krista Hierholzer and Pamela McDonnough
To: A South Florida University's College of Education Students

Subject: Survey of Educator's Guide on Collective Teacher Efficacy

Appeal for help:

The mission of leading modern schools in the age of accountability has become extremely complex, cumbersome, and challenging. The factors impacting and influencing a leader's ability to facilitate change at their site are far too many to count.

Now, add educational research to the mix. Modern-day leaders are expected to be "tuned in" to all of the latest trends and findings from scholarly resources. This embedded element of a leader's professional responsibility can often seem insurmountable at times.

Our goal as fellow educational leaders in the same struggle to succeed is to assist our fellow leaders transferring from theory to practice what has been identified as the new "number one" factor impacting student achievement.

Why YOU were selected:

As a current sitting administrator at a South Florida college of education student, it is evident that you are aspiring to be the best of the best! Please complete the initial consent forms, survey, and guide evaluation to assist us in synthesizing what is best and most helpful for modern-day leaders so they can maximize collective teacher efficacy at their sites and beyond.

How to Access the Survey:

The survey will begin with a brief consent form. Please note that you may click out at any time, and your answers will not be submitted unless you hit complete. The initial survey will only take about 3 minutes to complete. Once that is complete, you will receive access to the product as well as survey evaluations for the product.

Clickable Link:

Survey link: ▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊

Confidential and Voluntary:

Your participation in the survey is completely voluntary and all of your responses will be kept confidential. No personally identifiable information will be associated with your responses to any reports of these data.

Contact Information:
Contact us with any questions, concerns, or comments ▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊ and/or
▊▊▊▊▊▊▊▊▊▊▊▊. Further you may contact Dr. Weigel, Chair at ▊▊▊▊▊▊▊▊ and Dr. Patrick Cooper, IRB Committee for Lynn, at ▊▊▊▊▊▊▊

APPENDIX B [PARTICIPANT CONSENT FORM]

Consent Form for Collective Teacher Efficacy Guide

You are invited to participate in a web-based, online survey evaluation of our Educational Leaders' Guide to Collective Teacher Efficacy.

This is a research project being conducted by Krista Hierholzer and Pamela McDonnough, doctoral candidate students at Lynn University. It should take approximately 15 minutes to complete both survey evaluations once guide is reviewed.

PARTICIPATION
Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any question you do not wish to answer for any reason.

BENEFITS
Although you may not receive any direct benefits from participating in this research study, current students in educational leadership programs will benefit as they will be a part of a product evaluation as well as have direct CPED experience by participating.
Furthermore, your responses may help us learn more about the impediments that exist and prohibit educational leaders' ability to effectively foster and enable collective teacher efficacy.

RISKS
There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life.

CONFIDENTIALITY
Your survey answers will be sent to a link at SurveyMonkey.com where data will be stored in a password protected electronic format. Survey Monkey does not collect identifying information such as your name, email address, or IP address. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

At the end of the survey you will be asked if you are interested in participating in an additional interview by phone, in person, or email. If you choose to provide contact information such as your phone number or email address, your survey responses may no longer be anonymous to the researcher. However, no names or identifying information would be included in any publications or presentations based on these data, and your responses to this survey will remain confidential.

CONTACT
If you have questions at any time about the study or the procedures, you may contact us, Krista Hierholzer and Pamela McDonnough via email at ███████████████████████ or ███████████████████████. Further you may contact Dr. Weigel, Chair at ███████████████ and Dr. Patrick Cooper, IRB Committee for Lynn, at ███████████████

If you feel you have not been treated according to the descriptions in this form, or that your rights as a participant in research have not been honored during the course of this project, or you have any questions, concerns, or complaints that you wish to address to someone other than the researchers, you may contact the Lynn University Institutional Review Board at 3601 North Military Trail, Boca Raton, Florida 33431.

ELECTRONIC CONSENT: Please select your choice below. You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that:

- You have read the above information.
- You voluntarily agree to participate.
- You are 18 years of age or older.

☐ Agree
☐ Disagree

APPENDIX C [DEMOGRAPHIC DATA]

(Note: Question #1 is the "Consent Form" in the SurveyMonkey program.)

2. What is your current role in education?

○ I am an Assistant Principal (3-5 years)   ○ I am a Principal (0-5 years)

○ I am an Assistant Principal (6-10 years)   ○ I am a Principal (6-10 years)

○ I am an Assistant Principal (11 years or more)   ○ I am a Principal (11 years or more)

○ Other (please specify)

3. I identify as one of the following:

○ I am white.   ○ I am of American Indian descent.

○ I am of African American descent.   ○ I am bi-racial.

○ I am of Hispanic descent.   ○ I prefer not to respond.

○ I am of Asian descent.

4. My place of work is:

○ In the Miami-Dade area.

○ In the Broward County area.

○ In Palm Beach County area.

○ I prefer not to respond.

○ Other (please specify)

5. My current role is at a:

○ Elementary school (K-5)

○ Middle school (6-8)

○ High School (9-12)

○ K-12 wrap around school

○ Other (please specify)

APPENDIX D [GUIDE EFFECTIVNESS/ CTE BARRIERS]

6. The guide clearly defines Collective Teacher Efficacy.

○ Strongly agree   ○ Disagree

○ Agree   ○ Strongly disagree

○ Neither agree nor disagree

7. The guide outlines the research-based nature of the data supporting Collective Teacher Efficacy.

○ Strongly agree   ○ Disagree

○ Agree   ○ Strongly disagree

○ Neither agree nor disagree

8. The guide demonstrates the potential impact of Collective Teacher Efficacy on student achievement.

○ Strongly agree   ○ Disagree

○ Agree   ○ Strongly disagree

○ Neither agree nor disagree

9. The guide demonstrates the importance of Collective Teacher Efficacy on stakeholders.

○ Strongly Agree   ○ Disagree

○ Agree   ○ Strongly Disagree

○ Neither agree nor disagree

10. The guide stresses the importance of the leaders' role in developing Collective Teacher Efficacy.

◯ Strongly agree   ◯ Disagree

◯ Agree   ◯ Strongly disagree

◯ Neither agree nor disagree

11. The guide outlines the fostering conditions for Collective Teacher Efficacy.

◯ Strongly agree   ◯ Disagree

◯ Agree   ◯ Strongly disagree

◯ Neither agree nor disagree

12. The guide outlines the enabling conditions for Collective Teacher Efficacy.

◯ Strongly agree   ◯ Disagree

◯ Agree   ◯ Strongly disagree

◯ Neither agree nor disagree

13. The guide provides strategies and guidelines leaders can use to promote Collective Teacher Efficacy.

◯ Strongly agree   ◯ Disagree

◯ Agree   ◯ Strongly disagree

◯ Neither agree nor disagree

14. The guide provides adequate resources.

○ Strongly agree   ○ Disagree

○ Agree   ○ Strongly disagree

○ Neither agree nor disagree

15. The guide is concise and easy to access.

○ Strongly agree   ○ Disagree

○ Agree   ○ Strongly disagree

○ Neither agree nor disagree

The following questions ask you to consider Collective Teacher Efficacy in relation to your work setting. Each question speaks to a potential barrier you may be facing. Please indicate which enabling condition is most difficult to implement in relation to the potential barrier listed in bold.

16. I have a **lack of data and/or information** needed to implement this strategy:

○ Creating opportunities for meaningful collaboration

○ Empowering teachers

○ Establishing goals and high expectations

○ Helping educators interpret results and provide feedback

17. I have a **lack of support** to implement this strategy:

○ Creating opportunities for meaningful collaboration

○ Empowering teachers

○ Establishing goals and high expectations

○ Helping educators interpret results and provide feedback

18. I have a **lack of time** to implement this strategy:

○ Creating opportunities for meaningful collaboration

○ Empowering teachers

○ Establishing goals and high expectations

○ Helping educators interpret results and provide feedback

19. I have a **lack of funding and/or resources** to implement this strategy:

○ Creating opportunities for meaningful collaboration

○ Empowering teachers

○ Establishing goals and high expectations

○ Helping educators interpret results and provide feedback

20. I have a **lack of staff capacity** to implement this strategy:

○ Creating opportunities for meaningful collaboration

○ Empowering teachers

○ Establishing goals and high expecations

○ Helping educators interpret results and provide feedback

APPENDIX E [SEMI-STRUCTURED QUESTION]

21. What are other factors, not listed, that I feel may prohibit my ability to implement and foster collective teacher efficacy?