# How Can Leaders Develop and Maintain High Achieving Elementary Schools? A Single Case Study Exploring Collective Teacher Efficacy and Principal Leadership

**Susan Ernst**
*Colorado State University*

**Wendy Fothergill**
*Colorado State University*

*With the issue of student achievement at the core of educational policy, it is essential to determine how to create school environments in which all students have the opportunity to achieve. Collective teacher efficacy is a primary factor affecting student achievement, yet educational research also points to the importance of principal leadership in fostering and maintaining school cultures of success. A mixed methods approach guided this exploration of teacher and principal perceptions of collective teacher efficacy and leadership actions to foster collective teacher efficacy among staff.*

*Keywords:* teacher efficacy, elementary leadership, high achieving schools

## Statement of the Problem

Although the Every Student Succeeds Act (ESSA) was created to guide schools toward success and equity for all students and "maintains an expectation that there will be accountability and action to effect positive change in our lowest-performing schools, where groups of students are not making progress" (U.S. Department of Education, 2019, para. 5), the reality is not all students are being supported. Over half of all students in the United States are not attaining proficiency and each deserves more from their education (NAEP, 2019). According to the 2019 *Nation's Report Card*, 35% of fourth graders across the nation scored at or above proficient in reading and 41% scored at or above proficient in mathematics (National Assessment of Educational Progress [NAEP], 2019). Comparatively, 40% of fourth graders in Colorado, where this study took place, scored at or above proficient in reading and 44% scored at or above proficient in mathematics (NAEP, 2019). Though slightly above the national average for both measures, these figures indicate more than half of all students in Colorado fail to meet proficiency, causing reason for concern on a local level. Although a high level of educational attainment is a challenge within many schools, there are promising practices to support teachers and student achievement.

Principals can draw from social cognitive theory to employ practices that support comprehensive decision making and sustained growth. Education is constantly changing, and leaders of individual schools must be equipped to face these changes and make decisions to support sustained growth. Together, school leaders (Goddard et al., 2017; Leithwood & Jantzi, 2008; Tschannen-Moran & Barr, 2004) and teachers (Goddard et al., 2004; Tschannen-Moran & Gareis, 2004) play an integral role in ensuring school success through promoting collective teacher efficacy (CTE). Though there is a robust body of research relating to CTE, further research is needed on how principal leadership fosters CTE and affects school performance. This study was designed to promote student achievement regardless of demographic data through a single embedded case study focusing on how school leadership fosters collective efficacy within an HRO framework. The goal was to analyze lived experiences in relation to teacher efficacy while attending to factors affecting student achievement. Findings from this study may be used to inform leadership decision making to ultimately affect student growth.

## Collective Teacher Efficacy

CTE is rooted in social cognitive theory and related to self-efficacy. Much like self- efficacy, there are four main sources of collective efficacy, including mastery experience, vicarious experience, social persuasion, and affective states, with mastery experience being the most powerful (Bandura, 1997; Goddard et al., 2000; Goddard et al., 2004). Collective efficacy is "an emergent group-level attribute, the product of the interactive dynamics of the group members" (Goddard et al., 2000, p. 482). It is the group's shared belief in how they can achieve the task at hand rather than a combination of individual beliefs (Goddard et al., 2000). Several studies have shown there is a strong link between perceived collective efficacy and student achievement gains (Bandura, 1993; Eells, 2011; Goddard, 2001; Goddard et al., 2000). Results of one study showed positive associations between CTE and increases in student achievement for both mathematics and reading (Goddard et al., 2000). Hattie (2018) asserted that when a school staff believes they can collectively accomplish the task at hand and make a positive difference, they most often will. Hoy et al. (2002) identified the relationship between CTE and school achievement as reciprocal (i.e., influencing each other), in that "collective efficacy promotes higher school achievement, but

higher school achievement also produces greater collective efficacy" (p. 90). Teachers in highly efficacious schools set challenging goals for students, display mastery instruction, and believe students can achieve high academic attainment, which shapes the school culture (Tschannen-Moran & Barr, 2004).

Internationally, CTE is gaining traction in the research, further supporting the importance of understanding this construct in a variety of school contexts. Cansoy and Parlar (2018) conducted a study in Turkey spanning elementary to high school levels using teacher efficacy scales (self and collective) and an effective school leadership scale. A positive significant relationship between effective school leadership and collective efficacy ($r = .42$, $p < .05$) reinforced the ability of school leadership to positively and significantly predict CTE (Cansoy & Parlar, 2018, p. 562). The researchers offered more empirical evidence of the need for principals to support and bolster teachers while stressing the need for future research to determine what aspects of leadership support CTE (Cansoy & Parlar, 2018). Mastery experiences are the strongest predictor of CTE and school leaders must promote such experiences for teachers (Hoy et al., 2002). Research has shown that "as teachers experience success and observe the accomplishments of their colleagues as well as success stories of other schools, they develop beliefs in their own capabilities to succeed" (Hoy et al., 2002, p. 91), in turn affecting their instruction and ultimately leading to student achievement. It is clear school leaders play an integral role in building teacher efficacy perceptions.

**Leadership**

Because CTE often accompanies school achievement, it warrants attention from school leaders. Leithwood and Jantzi (2008) asserted "school leadership is second only to classroom teaching as an influence on pupil learning" (p. 28) and further suggested leadership can unlock existing capabilities within the organization. It is clear school leadership matters; therefore, "if efficacy is going to be fostered in schools as a means of increasing student outcomes, insights into what is known about the relationship between CTE and leadership styles and practices is needed" (Donohoo, 2018, p. 341). Acknowledging the interconnections among people and their environment, Bandura (1997) shared "the relationship between individual and organizational effectiveness assumes special significance when individuals have to work interdependently to produce results" (p. 472). This idea bridges organizational learning and social cognitive theory to get at the core of the increased student achievement present in high-performing schools.

Relying on social cognitive theory, researchers have used translated efficacy scales to examine the relationships among teacher self-efficacy, CTE, and leadership, which links to the constructs of the current research (Calik et al., 2012). Statistical analyses have shown instructional leadership does, in fact, have a positive and strong effect on CTE ($b = .34$, $p < .01$; Calik et al., 2012, p. 2500). Calik et al. (2012) also reported leadership directly relates to teacher self-efficacy and indirectly affects CTE and suggested instructional leadership is an antecedent to CTE. Calik et al.'s associational research highlighted the relationships between leadership and teacher efficacy, getting to the core of student achievement. Though the results of their study support the ability to draw connections among constructs, they do not shed light into exactly how principal leadership works to build CTE.

A primarily qualitative single embedded mixed methods case study was employed in the current study to answer the research questions. Two research questions were designed to examine how leaders develop and maintain CTE in an elementary school:

1. How do elementary teachers perceive collective efficacy in their individual school?
2. How do elementary principals perceive collective efficacy in their individual school?

## COVID-19

It is important to note that during the course of this research, people across the globe were affected by the COVID-19 pandemic and resultant interruptions to economies, travel, education, and daily life. The interview and focus group questions were crafted to encompass pre-pandemic perceptions and pandemic-specific perceptions because things undoubtedly changed in schools around the world as a result of the pandemic. In the State of Colorado, much like in many states across the nation, school assessment practices were halted and altered starting in March of 2020, carrying forward into the 2020–2021 school year.

## Methodology

### Research Methods

Though the overall research questions supported the decision to conduct case study research, a mix of qualitative and quantitative methods was employed to ensure a rigorous design and to increase validity of the results. Mixed methods research involves the collection and analysis of both qualitative and quantitative data in response to research questions (Creswell, 2014). Embedded mixed methods is a more advanced design that "nests one or more forms of data within a larger design" (Creswell, 2014, p. 228). Because qualitative and quantitative data were collected simultaneously, the research can be further described as convergent.

### Instruments and Data Collection

This research combined the Collective Teacher Efficacy Survey (CTES) teacher focus groups and interviews with school administration. The CTES was modeled from an original teacher efficacy scale (Gibson & Dembo, 1984) created through a series of reviews, field testing, and a pilot study, which supported both reliability and validity of the instrument (Goddard et al., 2000). Interviews and focus groups serve as a qualitative research strategy that enables participants to express their own experiences in response to open-ended questions (Creswell, 2015). To build upon the CTE scale data and maintain focus on CTE in a robust manner, the interviews and focus groups related back to CTE. Teacher focus group questions extended the CTES by eliciting specific examples of teacher perceptions of Bandura's (1997) sources of efficacy, Brinson and Steiner's (2007) suggested efficacy building actions, and Donohoo's (2018) job satisfaction assertions.

### Case Site Description

The selected K-8 school is situated in an urban district in Southern Colorado serves 571 students

with nearly 80% free and reduced lunch student population. The reported ethnic and racial demographics include roughly 58% Hispanic students, nearly 20% White students, 12% Black students, almost 8% of students identify as two or more races, 2% of students identify as Asian, and less than 1% of students identify as either American Indian/Alaskan or Native Hawaiian/Pacific Islander. In addition to ethnicity, students are identified in the following group memberships. Approximately 20% of students are English language learners, 14% of students qualify for special education services, and 3% of students are identified as gifted and talented. The principal has been leading the school for 8 years and currently has the support of two assistant principals.

The school has also been recognized by the state for 2016 to 2018 as a school that demonstrates high longitudinal growth with over 75% of students identified as at risk. SchoolDigger (2020) was used to examine 2019 school Colorado Measures of Academic Success (CMAS) data for combined grades (i.e., Grades 3–5) and indicated the school ranked considerably higher in science (45.2%) than the state average (30.7%). Though the school language arts CMAS data (43.8%) were slightly behind the state average (45.8%), the fifth-grade data (55.6%) stood out as considerably higher than the state average (48.4%) for language arts. This data trend was reflected for math as well, with a school average (40.8%) exceeding the state average (34.7%) and an even larger spread for fifth grade at the school (52.9%) compared to the state (35.7%). Aside from strong achievement scores, the school also demonstrates strong growth data according to the Colorado Department of Education Preliminary 2019 School Performance Framework (SPF). The overall 84.5% on the most recent SPF is the highest SPF for schools in the state with at-risk populations. Furthermore, the 74% median growth performance (MGP) in English language arts and 84% MGP in math both exceed state expectations. The school has strong achievement data (meets state expectations) paired with even stronger measures of growth (exceeds state expectations).

## Participants

Participation in this research was completely voluntary. The CTES was voluntary for certified and classified staff members to complete. Teacher focus groups were optional for staff members and were organized by the principal. I collected consent forms prior to conducting the teacher focus groups. The K-8 school has 83 staff members, including administration, certified teachers, and support staff. Of the 83 staff members, 48 opted to complete the CTES. I conducted two teacher focus groups with a variety of certified staff members. I conducted three separate principal interviews with the principal and two assistant principals.

## Results

### Emerging Themes

Through multiple iterations of coding of the teacher focus groups and interviews with school administration, including the principal and two assistant principals, three major themes surfaced: communication, culture of collaboration, and an overall situational awareness.

Communication involves providing feedback to staff in a variety of ways. When considering CTE sources, communication relates to social persuasion. Culture of collaboration includes the opportunity for staff to participate in shared decision making across the school.

Culture of collaboration is aligned to vicarious experience when looking at CTE sources. Situational awareness includes aspects of school culture, the leadership of school administration, and high expectations. Affective states and mastery experiences relate to situational awareness when considering the success of the school and the ability of the staff to navigate crises together. The emerging themes are explained in greater detail as they relate to each research question below.

**Research Question 1**

The first research question was: How do elementary teachers perceive collective efficacy in their individual school? Addressing this question required an understanding of the perception of CTE across the school and how teachers perceive the school. Any certified and classified staff were given the opportunity to complete a CTES and teachers could opt to take part in the focus groups as well. The survey was used to quantitatively address the perceived CTE level within the school and the focus groups provided tangible examples of staff experiences.

Staff members completed an online version of the CTES (Goddard et al., 2000) hosted by SurveyMonkey to ensure safe and secure data collection. To protect participant privacy, the survey was anonymous. The purpose of administering the survey was to determine the overall perceived level of CTE at the case site school. The school-wide score of 558 is above what is considered average (i.e., 500), indicating higher than average CTE beliefs (Ventura, 2003).

Though the quantitative data indicate above average CTE, the qualitative aspects from the focus groups depict a more complete understanding of how the staff perceives CTE. The emerging themes of communication, culture of collaboration, and situational awareness are connected to the sources of efficacy below.

*Communication*

Teacher development and involvement were elements of communication shared throughout the focus groups. Marzano et al. (2005) argued, "Good communication is a critical feature of any endeavor in which people work in close proximity for a common purpose" (p. 46). In a school, that common purpose is student success. Teachers articulated a strong culture of feedback, supportive leadership that promotes individual growth and strengths, and a sense of connection as teachers are encouraged to seek out expertise in others, all of which relate to feedback. The included narratives demonstrate the way communication is infused into daily school functioning. Social persuasion is a source of CTE situated within the theme of communication and contextual examples drawn from the focus groups are provided below.

**Social Persuasion.** Social persuasion can strengthen staff beliefs in their own capabilities and is developed through professional development (PD) and feedback, ultimately promoting a cohesive staff (Goddard et al., 2000). Teachers provided numerous examples relating to social persuasion highlighting areas of school culture, teacher involvement, feedback, and communication. Many teachers discussed the school culture when reflecting on what motivates teachers to improve their practice; one shared the impact of recognition from the principal:

> The principal makes everybody feel included in the Friday Forecast, and it doesn't matter what role you play. If you're a classroom teacher or a coordinator or a paraprofessional, or you work in the kitchen. Those shoutouts, key actions are . . . super powerful when it's something that you feel wasn't a big deal, but then they call it out in a big way. I think it's really powerful.

Another teacher added, "I got one [Friday Forecast shoutout] and someone came up to me and asked me what I was doing because of my shoutout. I felt like a super mega rock star," indicating an increased sense of worth from the recognition.

A focus on improvement and growth was described by one teacher who shared:

Knowing that the school is achieving so well makes me individually want to become a better teacher. And, I think, pushes me on a daily basis to make sure that I have my lessons ready. I've tried different strategies. I'm trying something new each time that will hopefully help the students more than something that I've done in the past, because I look around and I see everybody else who are just incredible teachers. And I'm like, I want to be like those guys . . . and so it encourages me and pushes me to become a better teacher, because you do constantly see excellent teaching and other people improving their craft. You're going to different professional developments and bringing those back. And I want to go learn something new. So I can include that into my class. And so it's, I think inspiring, but also very challenging because it takes a lot of work to constantly be improving, but it's worth it when you see what's going on in everybody's classrooms. Whereas I could see being in other schools where it's just kind of like, I'm just going to keep chugging along with whatever I'm doing. And I think I felt that in other schools too, but I'm constantly challenged in a good way here.

This example demonstrates the level of commitment from teachers at the school, as they are willing to put in the work for the benefit of students, while simultaneously highlighting a prime example of being motivated by peers through social persuasion.

Another teacher shared, "I do feel like any time there's the opportunity for staff to be involved, our administrators provide that opportunity for us." Although school leadership has to act quickly with some decisions or district initiatives, it was shared that "as much as possible, I do feel like we're involved in the decisions, and even when it comes to setting our UIP or unified improvement plan teachers are involved in that process as well." Teachers feel they have the opportunity to be a part of conversations and decision making at this school as many mentioned the building leadership team (BLT) as one of many ways to be involved. As the teacher above referred to a shared leadership model, BLT representatives alternate every 2 years to provide more teachers the opportunity to be a part of school decision-making processes.

Feedback is another aspect referenced throughout the focus groups. Multiple examples were provided that support the use of meaningful observation experiences that help teachers reflect and grow as educators. One teacher shared the following about an observation experience:

One of my favorite instructional strategies is protocol for math and that came in a spot observation—they said "hey I think you and your kids are at a place to try this, come find me." So we went through it, we did a whole PD together and he trained me on how to utilize the strategy, and so, they do a great job of offering those suggestions just through informal or formal observation. And so sometimes it will feel like they know they will roll it out to everybody, so it's almost like some of it even happens just in those little moments that then just spread like wildfire across the school.

### *Culture of Collaboration*

Marzano et al. (2005) stated culture, or "a sense of community and cooperation among staff" (p. 48), is an important aspect of developing a shared vision of the future of a school. School culture was referenced throughout the focus groups and closely linked to a strong desire to collaborate

among staff members. This culture of collaboration brings together two aspects of a school dynamic (culture and collaboration) and is explained through the following examples that link back to vicarious experience as a source of CTE.

**Vicarious Experience.** Vicarious experience includes hearing about the successes of others and engaging in observation to learn from those successes (Goddard et al., 2000). Throughout the focus groups, teachers provided examples to support vicarious experience. There are formal and informal structures in place to support the development of teachers through observation. Multiple teachers shared the benefit of observing in other classrooms. One shared, "I think for me the opportunities we have to go observe other teachers within our own building, or even sometimes in the district, and see some of the ways they're doing things often motivates me to learn more."

Classroom observations are encouraged through a "pineapple chart" where teachers can post an invitation for others to come observe a certain skill or strategy in the classroom. One teacher described it like this:

> We have share fairs and we've had pineapple charts where, basically we're opening up our classroom for people to come in and see, and just share everything and not reinvent the wheel. And I feel like I felt the most valued when someone had come to me and said, "I hear you're really good at 'this,' and I want to come and watch it." And just for them to be specific, to have heard them doing something that's working or that good, just makes you feel really valued, and I feel like that happens a lot . . . it doesn't matter if you're a first year teacher or a 16th year teacher, there's something that you're valued for, that people seek you out to learn from you, which is really cool.

Co-teaching is commonplace in this school and serves as another example of teachers being able to see the strengths of others. Leadership encourages teachers to collaborate by sharing strengths of teachers with the staff and providing coverage when possible. One teacher reflected on collaboration by sharing:

> There's also a value for your own unique approach to a lesson. I think that is really important too, but when we go to admin and if there is another colleague who's good at something [administration] is really good at being like, "Hey, you should go see this teacher's number talks because she's really good at that." And it kind of makes us, if we want to get better at something, collaborate with the teacher we might not have talked to otherwise.

### *Situational Awareness*

Those who lead with anticipatory leadership are equipped to handle potential threats and opportunities by leveraging an awareness of details related to school functioning (Marzano et al., 2005). Principals who are perceptive of staff morale and open to communication regarding decision making can influence how staff interprets challenges and positively affect overall school functioning. Teachers shared multiple examples that related to the situational awareness of school leadership that are linked to the sources of efficacy below.

**Affective States.** Another source of CTE is affective states, which is related to how those within a school organization interpret challenges. Goddard et al. (2000) stated "efficacious organizations can tolerate pressure and crises and continue to function without severe negative consequences; in fact, they learn how to adapt and to cope with disruptive forces" (p. 484). A typical school year has many disruptive forces, including the COVID-19 health crisis that has

uprooted many structures and routines in schools since the Spring of 2020. Teachers also shared multiple challenges the school previously worked through, including the transition to becoming an authorized International Baccalaureate School and school renovations. These examples showcase the ability to navigate potential crises and emerge as a cohesive school unit.

Perhaps previous challenges have influenced the way leaders and teachers navigated the current school context with COVID-19. When reflecting on the changes the school encountered prior to COVID-19, one teacher shared, "every year there's been a pretty significant change," but further reflected, "because of that sense of community and sense of wanting to excel in our positions, everybody just rolls up their sleeves, supporting each other, being like let's get to work, let's get started, it's not going to change itself." This statement sounds similar to Tschannen-Moran and Barr's (2004) assertion that "teachers in schools with high collective efficacy do not accept low student achievement as an inevitable by-product of low socioeconomic status, lack of ability or family background, they roll up their sleeves and get the job done" (p. 192). Affective states can explain how organizations navigate difficult situations, whereas mastery experiences provide a chance to overcome such difficulties to find success.

**Mastery Experiences.** Goddard et al. (2000) shared that teachers and schools encounter failures and successes, and mastery experiences require a "resilient sense of collective efficacy" by "overcoming difficulties through persistent effort" (p. 484). Through both focus groups, teachers shared various examples that supported mastery experiences during their tenure at this school. Teachers shared the opportunities to try new strategies in the classroom, professional development opportunities, and opportunities for professional growth. Additionally, teachers shared about planning and teaching, promoting inquiry and critical thinking for students, student data success, and procedures in place to support all students.

One veteran teacher shared this reflection on her growth as an educator once she found her strength as an educator at this school:

> When I started here, I had only been teaching for a few years and at the school that I worked at before this one, I really didn't like find my place, I felt really inadequate, I guess, as a teacher, because I was in a role that wasn't necessarily set up for me to be successful in. But I took a lot of that personally because I didn't feel like I made the difference that I wanted to make or was quite the teacher that I wanted to be. Then I think that being here, I was able to really like find my strengths and build on them and grow a lot over the 7 years I've been working here . . . I just grew substantially every year teaching and was able to see that in like my student results. And, I don't know that that would have happened if I was anywhere else.

Teacher growth is one important aspect in the success of a school, yet student success is also of importance. When it comes to student performance metrics, the data are not just celebrated, they are used in the decision-making and planning processes. One teacher explained:

> It's kind of ingrained in us that we're fairly data driven as a school . . . we use our iReady data or whatever sort of assessment data we're using to make groupings of kids to put interventions in place, to really make sure we're measuring the kids' growth ability to not just like assuming everything's okay.

It is an ongoing process because once groups are made, a teacher shared, "We're looking for those targeted interventions for kids, because we want all of them to grow, not just our high performers." The close attention to student data underscores the importance of mastery experiences to help teachers keep pushing their instructional practices. The teacher focus groups uncovered many aspects of how they perceived collective efficacy in their school, and Research Question 2 shifts

the focus to principal perspectives.

**Research Question 2**

Interviewing the principal and two assistant principals provided both unique perspectives and repetition of certain notable aspects in the process of working to understand Research Question 2. Similar to the teacher focus groups, the four sources of CTE (i.e., social persuasion, vicarious experience, affective states, and mastery experience; Goddard et al., 2000) were compared to school administration responses to identify patterns and themes. Narratives were organized by the emerging themes of communication, culture of collaboration, and situational awareness.

*Communication*

Effective communication skills are essential in school leadership much like in any leadership position. Communication is "the extent to which the school leader establishes strong lines of communication between and with teachers and students" (Marzano et al., 2005, p. 46). The examples previously provided by staff highlighted communication as a strength of the case site, yet arguably communication is strategically supported and strengthened by administration. Much like the collective efficacy source of social persuasion, communication can support staff cohesion, development, and ability to give actionable feedback. Social persuasion is closely connected to communication and several examples are provided to help make the connection.

**Social Persuasion.** It is clear from the responses of leaders and teachers alike that staff satisfaction was identified by respondents across the board. One example of staff satisfaction was shared as "how much people enjoy working here and they say it all the time to one another; especially when we hire new individuals, you get quickly absorbed into this mentality of this is a great place to be."

Schedules are designed in advance to get teacher feedback and buy-in: "If someone notices an issue with the duty schedule, it's better to know that months in advance instead of like at the moment it's happening." Proactive thinking also promotes buy-in from staff when it comes to initiatives or changes being implemented in the future: "We don't believe anyone ever masters teaching, there's always more that you can learn and that we're not doing our job if we're not helping push and grow your skillset as a teacher." The focus on growth is present in the debrief protocol shared here:

> We give very detailed narrative feedback and we use a praise, polish, question format. So we're always praising multiple things. We're going to give one or two polish statements of ideas or strategies, things to try and then a question or two. And then that way, when we come back a week later, we can get follow-up feedback on that. Or if we're seeing a different content area, cause we might see math one week and writing the other, when we debrief again, the first part of the protocol is how has your previous action step been going? So even if we saw reading, they can talk about, well, last time, you know, you saw math and we talked about rally coach and here's, what's happened over the last week using rally coach. Now this observation was about reading, but reading, I'm actually giving similar things cause I'm trying to do less teacher talk and more whatever. So then it's connecting that feedback over time, so it really is this cycle that plays out.

Administration reflected, "It's more powerful when it's teacher-driven, people get interested in what this teacher's doing that's new and cool. Then five people are doing it. And then

10 people." In sharing how quickly ideas spread without formally providing staff PD, one principal stated, "Suddenly it's just part of the fabric of the school and everybody is doing it, but the lineage of where that idea came from isn't necessarily clear to people; it makes for a highly collaborative atmosphere." Another reflection was, "We're mindful of holding people to a high bar, but then also mindful of connecting people with each other when it comes to effective practices that people might like to try out."

### *Culture of Collaboration*

School leadership facilitates a culture of collaboration across the school with strategic structures to support staff in the process of teaching and learning from each other. Through repetition of peer observations and hearing accounts of what colleagues across the school are doing well, it is clear leaders are supporting CTE by building vicarious experiences to support teacher development. Much like the principals support this for teacher development, they also need to be exposed to vicarious experience to grow their own skills as leaders.

**Vicarious Experience.** One principal took the opportunity to observe different principals and question why they did certain things in order to create a leadership toolbox. They shared, "What I've seen as most successful is not a top-down approach, you have to give teachers some autonomy to do what works for them, as long as it's getting the results that you want for their students." This understanding of teacher needs serves this school leadership team well and highlights their continued attention to school functioning.

### *Situational Awareness*

There is no denying that a large part of school leadership is handling situations that arise on a daily basis and that affect stakeholders in various ways. This is what Marzano et al. (2005) described as a leader's "awareness of the details and under-currents regarding the functioning of the school and their use of information to address current and potential problems" (p. 60). How leaders respond to disruption relates to how aware leaders are in the first place. Having situational awareness sets up leaders for success when interpreting potential challenges.

**Affective States.** Affective states is the fourth source of efficacy and in essence uncovers how challenges are interpreted within an organization and more importantly how those in the organization are able to tolerate pressures, adapt, and cope with disruptions as they arise (Goddard et al., 2000). This school, like many, has had a fair deal of disruptions and challenges related to COVID-19 in terms of school functioning. However, leaders and staff at this school have navigated myriad other challenges and disruptions prior to the health crisis. Administration has also navigated challenges with individual teachers, whether they are dealing with personal matters or engaging in teaching-related coaching conversations.

The school staff navigated this as a whole through the support of a university partnership. A professor came to work with the staff about "robust failure," guiding the staff through hands-on experiments "where there was no way to be successful—you were going to fail this experiment, you didn't have all the materials and information you needed, and working them through that process of how to struggle productively versus just struggle." This work related directly to staff work and turned into a problem of practice. It was also noted that "we do instructional rounds here, and we write a problem of practice every year that guides teacher goals. We do walkthroughs where staff get to observe other grade levels focused on our problem and practice." This concept

of productive struggle became a school-wide focus for 2 years, digging into "that balance between spoon-feeding kids too much and letting them struggle too long with no support." An exciting part of the process was "the more that we did that with kids, the more that then helped them apply it themselves in terms of taking risks . . . and how do you respond when something doesn't go your way?" One of the teachers took the concept of productive struggle to heart and self-reflected through the challenge of teaching remotely and one day was in tears about the difficulty and challenges and then opted to shift their mindset and be a problem solver. The administrator shared:

> Watching them Tuesday, Wednesday was a whole different person than who we saw on Monday. . . . That kind of thing just spreads amongst staff when you see them do that, you're thinking, okay, I can do this too. I can figure this out and solve my problem situation. It's contagious and modeling what we want.

A further testament to the school's ability to adapt to the challenges presented by COVID-19 is shared here: "I actually feel like the strength of our school during this is how much we are doing that is normal and the same and routine," adding teachers are not the only ones to benefit from consistency, "I think that kids appreciate that because it just does provide a sense of normalcy in a time that is really hard and not normal."

COVID-19 remains at the forefront of reflections among leadership as one principal shared, "The whole goal is to not see the situation as something we're just trying to get through, but something that potentially could change long term, what we do for schools," furthermore, "maybe a pandemic is our opportunity to do that because we've been talking about it for a few decades, but no one ever actually makes the change." Stemming from that, the leadership team spent time "talking about some of the possibilities. This is obviously frustrating and it's going to be hard and it's going to be tough, but, what are some of the good things that can come out of it?" Reflecting on the positives and celebrating success is where mastery experiences come in.

**Mastery Experiences.** In response to the question, "How has your school experienced success?" the administrators shared multiple examples, including setting "high expectations for kids academically, but also just as people," not just setting high goals but also a determination for improvement because "everybody's constantly wanting to get better, which then pushes everyone else to get better." The district leaders also monitor teacher retention in terms of creating a positive school climate.

One administrator reflected on the pride from earning the Governor's Distinguished Growth award by sharing, "Looking at the list of schools who also won the governor's award, I noticed that a lot of them were from much more affluent areas. And we were the only one I noticed though as a Title 1 school." Being the only Title 1 school with such achievement "was a really proud moment where this is a sign that we were doing really good things for kids, and they're achieving at levels comparable to really affluent districts." This sustained growth is certainly a purposeful and actionable goal, as it was shared, "You wouldn't expect to see some dramatic spike, the goal is nice stairsteps that are sustainable for kids and aren't just mastering a test, but also have the deeper meaning, of what we deemed important, long-term skills for kids." It is clear the staff have paused to celebrate success, yet they never cease to keep adapting and working hard to see student growth. The narratives above more explicitly showcase how teachers and leaders perceive CTE and how it is maintained within the school. What might other leaders consider in order to bolster CTE in their schools and why might it matter?

**Discussion**

"Fostering collective teacher efficacy should be at the forefront of a planned strategic effort in all schools and school districts" and "educators' beliefs about their ability to reach all students, including those who are unmotivated or disengaged, should be openly shared, discussed and collectively developed" (Donohoo, 2017, p. 1). Leaders should consider some of the following practices rooted in research and framed by the current study when looking to foster CTE among staff. Donohoo (2017) outlined four practices to support leaders in developing CTE among teachers: creating opportunities for meaningful collaboration, building collegial relations, empowering teachers, and involving teachers in decision making. These aspects are present at the case site and are further contextualized for those seeking to adopt similar practices.

     Meaningful collaboration requires time and a clear support structure. The case school embodies this aspect starting with a schedule that provides common planning time for teams to the greatest extent possible. Additionally, staff use school-wide PD time without students to dig into data through Professional Learning Communities and work on individualized goals. Though there is autonomy for teachers in this work, it is also structured to promote the efficient use of time, which supports Donohoo's (2017) assertion that:

> To reach the level of joint-work and to ensure teams avoid the pitfalls of groupthink, structures and processes need to be in place that promote and require interdependence, collective action, transparency, and group problem solving in search of a deeper understanding (p. 39).

This is evident when considering the school-wide problem of practice in which teachers dig into issues together to improve outcomes for students. In terms of collegiality, this is evident in teacher retention and the dynamic of the "school family" feeling shared within the focus groups and interviews. Teachers feel empowered at the school site, and several reiterated the boost they received when getting a "shoutout" in the weekly newsletter, being observed as a student teacher, or being sought out as an expert in some teaching practice. This supports what Donohoo shared: "Change is more likely to be effective and long lasting when those who implemented it feel a sense of ownership and responsibility for the process" (p. 40). Aside from leadership actively "planting seeds" of collaboration and building teachers up by drawing attention to their strengths, this also manifests through the share fairs and pineapple chart referenced numerous times.

     Involving teachers in decision making was another leadership action used to foster CTE. The process the BLT engages in to unpack the annual climate survey is one way leaders purposefully bring teachers into decision-making processes at the school. It was reflected, "They're the ones who really lead the analysis, it's not something that just sits with the admin team, we make decisions based on what all of our colleagues have said," which builds ownership and promotes staff engagement in decisions outside of the classroom. These examples support the development of CTE within the school and provide insight into how these practices come to life within a school.

     Previous research has shown collective efficacy is more important in explaining school achievement than is socioeconomic status, which is significant because "it is easier to change the collective efficacy of a school than it is to influence the SES of the school" (Hoy et al., 2002, p. 89). Hoy et al. (2002) further asserted, "When collective efficacy is high, a strong focus on academic pursuits not only directs the behavior of teachers and helps them persist but also reinforces a pattern of shared beliefs held by other teachers and students" (p. 89). Typifying this aspect of CTE, the case site has a strong academic focus supported by leaders and teachers alike.

Data meetings and PLC structures, co-teaching to support all students, "planting the seed" to spread instructional initiatives, and frequent observations paired with debrief for teacher growth are all used to support students' academic achievement. Building CTE does not come through a sole focus on academics, it is also supported through the sources of efficacy, including mastery experiences, vicarious experience, social persuasion, and affective states (Goddard et al., 2000).

Mastery experiences are the most influential source of efficacy (Bandura, 1997) and therefore should be considered by school leadership when looking to bolster the CTE of staff. Mastery experiences were showcased across the case site through teacher and administrator responses. Teachers shared excitement about receiving a forwarded parent email during a challenging time and felt motivated and supported to implement new teaching practices because they had the support of leadership. The school celebrates successes through weekly shoutouts in the Friday Forecast newsletter and through statewide recognition of student growth and achievement, yet staff never seem to stop and settle for complacency, they keep moving forward. CTE builds because when "teachers experience success and observe the accomplishments of their colleagues as well as success stories of other schools, they develop beliefs in their own capabilities to succeed" (Hoy et al., 2002, p. 91). Teachers in this study shared personal success stories relating to data growth, successful observations, implementation of new structures, and being sought as an expert in a certain facet of teaching as examples of mastery experiences. They also shared the importance of peer observation to build their skills as teachers.

Vicarious experience is strengthened through the modeling of practices and witnessing the success of others. The pineapple chart, share fairs, and co-teaching practices are three specific ways leaders in this school demonstrate attention to vicarious experience as a means of promoting teacher efficacy. Learning coaches are another example of support used to build vicarious experience, as they come in to model and explore instructional practices with teachers. Teachers appreciate that even principals come to model instructional practices, as one teacher shared a favorite instructional routine came from individualized PD and a lesson modeled by a principal.

Social persuasion is exemplified throughout the school. PD and feedback are both identified sources for building CTE. Teachers and principals alike reflected on the culture of observations and more importantly the resulting feedback. It is clear teachers crave the feedback to grow as educators; one teacher shared appreciation for the feedback process by stating, "It's not like you just get a report or an email about how you did, and then there's nothing after that," as teachers have the opportunity to discuss and improve teaching practices. Principals also feel strongly about the feedback model as one shared, "We have a really consistent and frequent observation feedback model . . . they themselves have articulated the growth that they've undergone, we are able to like really help teachers to become more effective." This example highlights the importance of feedback for teacher growth and development; however, feedback alone is not enough, but "when paired with success and positive experiences it can influence the collective efficacy of a faculty" (Goddard et al., 2000, p. 484). Leaders should look for ways to provide ample feedback paired with success to help build efficacy.

The ability to navigate and cope with difficult situations is another source of efficacy, also known as affective states. Aside from the dynamic situation posed by COVID-19, teachers shared other ways affective states are exemplified within the case site. One teacher shared their experience with a shift in teaching demands, and said that though it was a lot to process initially, they felt the overwhelming support from colleagues who came to assist in the transition; they reflected on the process, stating, "I appreciate all the love, and they're all like, you're going to be fine." Teachers and administration support each other through times of difficulty whether they are asked to or not.

Several examples reinforced this idea, such as when middle school teachers came to help log primary students into their computers, COVID groups, and even walking dogs for colleagues outside of school. COVID-19 has left many teachers feeling ineffective, as one shared, "We know the expectations we have for ourselves and our students, and it's super frustrating to me that I can't meet them," but that has not stopped teachers from putting in the work because it was noted "with COVID, we're not willing to sacrifice quality." It is clear from these statements teachers are pushing through otherwise negative forces affecting their work.

Though it demands much reflection and reframing, they continue to show up despite feelings of inefficiency. This persistence demonstrates strong CTE because "in a school with a high level of collective teacher efficacy, teachers are more likely to act purposefully to enhance student learning" (Goddard et al., 2000, p. 502), and these teachers are not about to settle for anything less than their best for their students. How might school leaders support CTE in their schools? They can start by considering any of the examples provided above and emphasizing what is going well within the school by highlighting the successes of the school. At the case site this was achieved through weekly shoutouts, positive and encouraging emails, and school recognition of achievement data.

Furthermore, leaders may consider providing ample opportunities for peer observations, as evidenced in this school through the problem of practice observations, the pineapple chart, share fairs, and even co-teaching experiences. Feedback should also frame the work of school leaders to support teacher growth, as having specific feedback structures or protocols in place may help support the intentionality of feedback. Support through difficult times is also crucial, which is where a strong school culture focused on building supportive relationships among staff is key.

Though CTE is a promising construct for promoting academic achievement in schools, High Reliable Organization principles may further frame the work of school leaders.

## Conclusion

The examples provided in this article are rooted in the literature, contextualized from the case site, and described through sources of CTE. Incorporating CTE highlights promising practices for school leaders ultimately looking to develop and maintain highly reliable schools. These came to life through the three overarching themes of communication, culture of collaboration, and situational awareness, all of which support aspects of CTE structures.

Structures that support developing CTE include recognition for success, observation and modeling of instructional practices, consistent and timely feedback, and working through challenges in a strategic manner. These are not prescriptive suggestions nor are they an exhaustive list of all potential examples. "Amazing things happen when a school staff shares the belief that they are able to achieve collective goals and overcome challenges to impact student achievement" (Donohoo, 2017, p. 1). Students deserve nothing but the very best, and these practices may just be a part of the student achievement solution.

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