

The Impact and Cultivation of Collective Teacher Efficacy

Alicia Boone

St. Mary's University

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

Maximizing student achievement is the goal of every school. Schools face many variables though- increasingly diverse student populations, fewer resources, and seemingly endless government mandates. Such variables make the goal of maximizing student achievement a difficult challenge, especially since these variables lie beyond the realm of control of educators. However, all schools have a consistent and valuable resource: the faculty. Furthermore, the faculty themselves have tremendous ability to improve student achievement. Therefore, good school leaders must focus on developing this asset to its fullest potential. One powerful way to do this is to foster a culture of collective efficacy among the faculty. Of the many factors that have significant sway on maximizing student achievement, the power of teachers' collective efficacy is an undeniably essential factor in reaching this goal.

Defining Collective Teacher Efficacy

Collective efficacy refers to a work group dynamic in which the confidence the individual members of the group place in the whole group's abilities to be successful in achieving a task or overcoming a problem actually yields greater performance from the group. The discovery of this pattern belongs to the psychologist Albert Bandura. To use his own words, Bandura (1997) defined collective efficacy as "a group's shared belief in its conjoint capability to organize and execute the courses of action required to produce given levels of attainment" (p. 477). Applying this dynamic to a school setting, collective teacher efficacy, or CTE, is the shared belief of teachers in a school that the faculty can positively influence student achievement.

Another significant dynamic of collective efficacy is that it functions as a positive cycle of self-fulfillment. Much of the research on CTE notes that the level of perceived collective efficacy in teachers has a reciprocal relationship with the level of student achievement (Bandura,

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

1997; Goddard, Hoy, & Hoy, 2000; Tschannen-Moran & Barr, 2004; Donohoo, Hattie, & Eells, 2018). When teachers collectively believe in their ability to improve student performance, their successes in achieving this goal affirms their belief. This success become a source of motivation and determination to continue or even improve their efforts, which results in further growth in student achievement. A caution must be noted however, that the reverse is also true. If teachers possess a perception of low collective efficacy, low student performance will further that belief. Once this belief sets in, regardless of whether the perception of collective efficacy is high or low, it becomes a stable part of the culture of the school that can only be changed through great effort (Goddard, Hoy, & Hoy, 2000; Tschannen-Moran & Barr, 2004).

Evidence of the Impact of Collective Teacher Efficacy

Bandura and other educational researchers in the United States were quick to turn to investing the effects collective efficacy in schools. Their efforts resulted in refined models for assessing the level of CTE within a school as well as an overwhelming amount of evidence that CTE significantly impacts student achievement. These findings caught the attention of other countries, and researchers both in and out of the field of education began to conduct studies using those same models to see if the results could be replicated as well as to expand on the implications of CTE for schools. Even in countries such as the Netherlands and Iran, with drastic differences in educational systems and regional cultures when compared with the United States, sound studies revealed similar findings of the positive impact of CTE on schools.

One of the earliest studies inspired by Bandura's findings and assertions about collective efficacy sought not only to find a way to measure the presence of collective efficacy among school's faculty but also became one of the first to assess CTE's impact on student achievement. 452 teachers from a random sampling of 47 elementary schools within a single, large urban

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

midwestern school district responded to a survey in which they assigned a rating from a six-point Likert scale from *strongly agree* to *strongly disagree* for 21 positively and negatively worded statements about two areas: the teacher groups' competence and analysis of task completion by students (Goddard, Hoy & Hoy, 2000). Collective efficacy is not the sum total of different individuals' sense of self efficacy within a group, but rather the perception the group's members have of the entire group's efficacy in accomplishing tasks. Thus, the design of the study asked individual teachers to indicate their sense of the abilities of the collective faculty of their school. The survey results allowed the researchers to establish a collective mean and a scale for high and low CTE in each of the schools. Researchers then compared the results of the CTE instrument with math and reading score results from the state's Metropolitan Achievement Test given to 2nd, 3rd and 5th grade students at the schools surveyed, with a total student sample of 7,016 students (Goddard, Hoy & Hoy, 2000). This comparison revealed a strong correlation between a positive sense of CTE and student achievement, specifically that "a one unit increase in collective teacher efficacy is associated with an increase of more than 40% of a standard deviation in student achievement" (Goddard, Hoy & Hoy, 2000, p. 501). This level of student achievement was present in both subject areas assessed in the state's achievement test. These results give a clear indication that CTE influences student achievement.

A later study in the state of Virginia sought not only to assess the influence of the level of CTE within a school on student achievement but to also see if a high level of CTE could overcome the impact of students' socioeconomic status (SES). Like the previous study, to determine the level of collective efficacy within the 66 middle schools from the convenience sample, the researchers built a survey in which teachers assigned a rating from a nine-point Likert scale to statements regarding teachers' collective influence on student achievement. The

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

scaled responses were then compared to the performance of each school's 8th grade students on Virginia's annual Standards of Learning exam (Tschannen-Moran & Barr, 2004). The results found that "collective teacher efficacy accounted for 18% of the variance in student achievement on the grade 8 math SOL test, 28% of the variance in student achievement on the grade 8 writing SOL test, and 14% of the variance in student achievement on the grade 8 English SOL test" (Tschannen-Moran & Barr, 2004, p. 201-202). Besides yielding another significant correlation between the levels of CTE and student achievement, this study also demonstrates that the impact of CTE is present at both elementary and middle school levels, despite the differences in organizational structures and developmental levels of the age groups of the students at the schools. Furthermore, by comparing the teacher survey results and student test scores with the students' SES status, researchers found that, while lower SES status was associated with lower academic performance in students, CTE still made a significant, positive independent impact on these students' writing scores (Tschannen-Moran & Barr, 2004). The implication of this result, that CTE can not only nullify a factor like SES, that traditionally negatively impacts student achievement, but even contribute to increased student performance further reveals its value to schools.

The decision of the researchers in the Virginia study to isolate and control the variable of the socioeconomic status of the students and the schools themselves revealed another valuable insight. Specifically, researchers noted that "collective teacher efficacy was uncorrelated to the socioeconomic status of the school, so that schools serving populations with low SES may have either high or low collective efficacy beliefs, and schools in high SES areas may, as well, have either high or low collective efficacy beliefs" (Tschannen-Moran & Barr, 2004, p. 204). This again indicates that CTE operates to affect student achievement outside of the influence of SES. Furthermore, it

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

reveals that CTE can only be determined by the culture of the school and its members beliefs about their ability to make a difference for their students.

As previously stated, the positive impact of CTE on student achievement is also demonstrably present in other countries. In 2011, Dutch researchers conducted a study among all 53 elementary schools within an economically diverse Dutch school district to see if CTE and teachers' in-school social networks had any effects on student achievement. This investigation was the first attempt within the Netherlands to see if the correlation found between CTE and student achievement could be replicated in the schools there, and it inevitably found that CTE led to an increase in the language performance of 6th graders on a standardized assessment (Moolenaar, Slegers, & Daly, 2012). In a deviation from prior studies conducted in the United States, however, their results did not show CTE having any significant impact on students with a low SES status, nor was there significant improvement in math performance in schools with high CTE (Moolenaar, Slegers, & Daly, 2012). However, this does not negate the significance of the correlation between increased student performance in language at schools with high CTE, nor does it lessen the impact of the other area of investigation by the study.

The results of the Dutch study's investigation into whether a relationship could be found between teachers' social networks and student achievement raises interesting questions for professional learning communities (PCLs) in schools. The researchers noted that they "could not confirm a direct effect of teachers' social network structure on student achievement at the school level of analysis" but that "findings suggested that the density of work-related and personal advice networks affected teachers' perceptions of collective efficacy, which in turn was associated with increased student achievement (Moolenaar, Slegers, & Daly, 2012, p. 258). This seems to indicate that the mere presence of teacher networks in the school, whether work-

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

related, such as PLCs, or otherwise, are not enough to increase student achievement. However, if these sorts of networks help teachers build stronger connections to their colleagues, this could build or increase their perception of the collective abilities of their colleagues, fostering a sense of CTE, which will impact student achievement. PLCs, then, may serve an important, productive function in building a sense of collective efficacy among faculty. Furthermore, if PLCs are not fostering CTE among members, these results suggest that their ability to significantly impact student achievement is limited.

A final, more recent study on CTE comes from Iranian economists, who assumed the positive impact of CTE on student achievement and instead focused on the impact of CTE on individual teachers. This qualitative study surveyed 255 elementary school teachers from a single school district in Iran, and determined that schools that indicated a strong perception of CTE were strong predictors of teachers with a high sense of self-efficacy (Ghadampour, Mottaghinia, & Veiskarami, 2017). These results give insight into why schools with high CTE show more positive student achievement. As the researchers reported, in such schools, “the members may develop the expectation of successful teaching in themselves and put greater endeavor to succeed” (Ghadampour, Mottaghinia, & Veiskarami, 2017, p. 484). Essentially, the high CTE in the school creates a norm-based expectation for strong performance, and teachers will individually make efforts to meet the established norm.

This observation by the Iranian researchers also explains why a school can have teachers with a high level of self-efficacy but still have a low sense of collective efficacy. An individual sense of efficacy, or self-efficacy, can occur in isolation. For example, a low performing school can have teachers in it who have a strong sense of self-efficacy. However, because of the influence of a weak culture or a confluence of other teachers with a low sense of self-efficacy,

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

the efforts of these high performing teachers remain isolated and are not widespread across the school. As Bandura (1997) noted, “the belief systems of the staff also create an organizational culture that can have vitalizing or demoralizing effects on the perceived efficacy of its members” (p. 248). Because collective efficacy is not perceived as the norm, there is nothing to encourage low-performing teachers to raise their standards or expectations. The opposite is the case in a school where the teachers have a collective sense of efficacy. Even a few low performing teachers or teachers with a low sense of self-efficacy perform better because they are more likely to have greater determination to meet student weaknesses because of the social pressure created by the school’s culture to meet the established norm of success.

Recommendations to School Leaders

While collective teacher efficacy is not the sole factor influencing student achievement, its impact, whether positive or negative, is undeniable. Because CTE is a shared belief that manifests itself through social norms and behaviors, it rests firmly in the realm of school culture. School leaders have an imperative, then, to establish and cultivate a high level of collective efficacy within their school’s culture. Fortunately, researchers have determined four critical sources for collective efficacy. School leaders attempting to prompt a stronger level of CTE among their faculty should focus on providing opportunities for mastery experiences, vicarious experiences, and social persuasion, as well as strengthening the emotional affective state of the school (Bandura, 1997; Goddard, Hoy & Hoy, 2000; Tschannen-Moran & Barr, 2004; Prelli, 2016).

Mastery experiences refers to setting up opportunities for and recognizing successes by the teachers. Instructional leaders can build efficacy through carefully consider staff development activities or action research projects that are intentionally designed to produce

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

mastery experiences (Tschannen-Moran & Barr, 2004). Additionally, when attempting to build collective efficacy, teachers need to see that their collective behaviors yield a positive impact. In *The Power of Collective Efficacy*, Donahoo, Hattie, and Eells (2018) note that “it is essential, therefore, to help educators make the link between their collective actions and student outcomes” (p. 42). This means that teachers need to see direct evidence of their improved efforts leading to improved successes. One way to do this is through establishing shared, measurable short and long-term goals. Furthermore, the achieving of goals or gains in student achievement needs to be recognized. Public acknowledgements of accomplishments serve an important role not only for giving credit where it is due, but also because they can serve as a reminder of the expectations of performance. Given this latter purpose of public praise, the actions and behaviors praised need to be carefully chosen. School leaders attempting to increase teachers’ sense of mastery should focus on recognizing skills and achievements that everyone can do as opposed to specific talents that not all teachers may possess (Gruenert & Whitaker, 2017, p. 146).

Vicarious experiences involve seeing others perform a specific task. This could occur through modeling, workshops, or even visiting another school that has a similar population of students and teachers but is effective in an area in which the home school is not. Listening to colleagues or other schools’ success stories or doing research on effective programs taking place in other schools also provides such experience (Goddard, Hoy & Hoy, 2000). In house methods of vicarious experiences could involve observing the class of a master teacher or watching videos of effective lessons. The goal is for teachers to see methods and skills effectively employed that they are also capable of utilizing or developing.

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

Social persuasion is a thoroughly effective tool for school leaders seeking to tweak any aspect of the school culture. As Bandura (1997) noted, "personal agency operates within a broad network of sociostructural influences" (p. 6). Essentially, the social norms, values, and attitudes that surround us can have a significant impact on our own behaviors and sense of efficacy.

Leaders can utilize stories of the school's prior successes or reminders of the faculty's capabilities as well as reinforcing the efforts and behaviors they want people to make. Building opportunities for faculty to participate in collaborative decision-making also increases their buy-in and commitment to those procedures. Another way for school leaders to utilize social persuasion is through establishing PLCs in which there are "expectations for formal, frequent, and productive teacher collaboration and by creating high levels of trust for this collaboration to take place" (Donohoo, Hattie, & Eells, 2018, p. 43). Teachers need to be encouraged to give constructive feedback to one another, to seek out one another's advice and insights, and to focus their efforts on maximizing student learning and seeking evidence of that learning. Evidence plays a huge factor in this aspect of developing collective efficacy in teachers. As the Iranian researchers also noted "when the teachers in a particular school believe that they can help the school's progress and can achieve this purpose, they start to cooperate with each other with the purpose of fulfilling school goals" (Ghadampour, Mottaghinia, & Veiskarami, 2017, p. 486). This cooperation is key to collective efficacy, as it enables teachers to build confidence not only in their own work, but also in the efforts and abilities of their colleagues.

The final source of collective efficacy, emotional affective states, might better be described as the collective disposition of the school. This disposition determines how the school and its members will react to stressors. It also influences the sense of job satisfaction and morale among members. This element of collective efficacy is also the best way for a school leader to

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

gauge the level of CTE among the faculty. Schools with high CTE are characterized by high levels of trust, collaboration, job satisfaction, positive morale- even in the face of difficulties, commitment to the teaching task, determination and viewing struggles as problems to be solved as opposed to obstacles (Goddard, Hoy & Hoy, 2000; Tschannen-Moran & Barr, 2004, Gruenert & Whitaker, 2017; Donahoo, Hattie, & Eells, 2018). As with the other elements of collective efficacy, school leaders must encourage and praise faculty when they engage in behaviors that will strengthen the collective emotional affect of the school. Fostering a culture of on-going self-evaluation, commitment to improvement, collaboration, support, and risk-taking, all while reinforcing the value of the efforts being made on behalf of student learning are a worthwhile approach to strengthening this aspect of CTE.

THE IMPACT AND CULTIVATION OF COLLECTIVE TEACHER EFFICACY

References

- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: W.H. Freeman, c1997.
- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective Teacher Efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479-507.
- Gruenert, S., Whitaker, T. (2017) *School Culture Recharged: strategies to energize your staff and culture*. Virginia: ASCD, c2017.
- Moolenaar, N. M., Slegers, P. J., & Daly, A. J. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education*, (vol28) 251-262.
- Prelli, Gail E. (2016). How School Leaders Might Promote Higher Levels of Collective Teacher Efficacy at the Level of School and Team. *English Language Teaching*, 9(3) 174-180.
- Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: the relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools*, 3(3), 189-209.
- Veiskarami, H. A., Ghadampour, E., & Mottaghinia, M. R. (2017). Interactions among School Climate, Collective Self-Efficacy, and Personal Self-Efficiency: Evidence from Education Institutions. *International Journal of Economic Perspectives*, 11(1), 481-488.