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Principals Cultivating Collective Teacher Efficacy

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Walden University

College of Education

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Frank J. Vetter

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the review committee have been made.

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Walden University

2022

Abstract

Principals Cultivating Collective Teacher Efficacy

by

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MA, Johns Hopkins University, 2003

BS, University of Maryland, College Park, 1993

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

September 2022

Abstract

Nationally, collective teacher efficacy (CTE) has been correlated with higher levels of student achievement. The problem addressed through this study was that local school district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. Guided by the enabling conditions of CTE, the purpose of this basic qualitative study was to explore how local middle school principals cultivated CTE in their schools through the collaborative planning process. Eight middle school principals with experience using the district's collaborative planning process completed semistructured interviews. Data analysis employed inductive, open coding to identify themes. Themes indicated that, as part of the collaborative planning process, the middle school principals showed deference to and trust in teachers' knowledge and ability, empowered formal and informal teacher leadership, acknowledged teacher accomplishments, used collaborative planning as job-embedded professional learning, employed different schedules to promote collaborative planning success, and were open to teacher feedback. Findings suggest that, despite their knowledge of CTE and use of the collaborative planning process, middle school principals needed a deeper understanding of how to cultivate CTE. A position paper was developed for school district leaders to suggest solutions for improving the quality of principals' leadership relative to use of collaborative planning and fostering CTE. With enhanced use of the collaborative planning process, district leaders will be better positioned to create positive social change within schools by creating an educational environment that effectively cultivates CTE which may then lead to improving student achievement over time.

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Dedication

I dedicate this work to my amazing children: Chloe, Isabelle, and Tristan. Their love inspires me.

I also dedicate this to Dr. Jessica Reinhard. Her love, encouragement, and sage advice bolstered my commitment to remain on this journey until I reached my goal.

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Section 1: The Problem

Schools in the United States face the challenge of having to educate students from diverse backgrounds within the accountability framework of the federal Every Student Succeeds Act (MSDE, 2018). School leaders have adopted different forms of collaborative planning processes to support teachers in dealing with the challenges of educating all students (Goddard et al., 2015; Sehgal et al., 2016). Researchers have found that teacher collaborative planning processes have helped to cultivate the belief of teachers that they have the ability to educate their students. This is known as collective teacher efficacy (CTE; Goddard et al., 2000). CTE has been correlated with significant improvements in learning outcomes for students, including in fourth grade reading and math (Goddard et al., 2021), elementary math and science achievement (Qadach et al., 2020), kindergarten math achievement (Jung et al., 2014), and secondary math achievement (Archambault et al., 2012), and is considered a best practice (Donohoo, 2017, 2018; Donohoo et al., 2020; Goddard et al., 2021).

The Local Problem

The problem addressed through this study is that district leaders at Monocacy Public Schools (MPS), a pseudonym, have been unsuccessful in cultivating CTE through the district's collaborative planning process. MPS is a mid-Maryland suburban preK-12 public school district serving approximately 45,000 students. District leaders believed that the lack of sufficient CTE was a cause for unsatisfactory student achievement. In 2017, schools in MPS first began to implement their collaborative planning process with the intent of fostering CTE as a strategy to increase student achievement. According to

MPS's 2019 Every Student Succeeds Act (ESSA) Consolidated Strategic Plan, however, student achievement still lagged, so leaders conducted a root cause analysis. Leaders determined that insufficient implementation of the collaborative planning process in schools hindered CTE, and the lack of CTE hindered achievement growth, as the literature predicts it should (Donohoo, 2018). When collective efficacy is cultivated in teachers, they have been shown to be more likely to overcome obstacles to teaching and learning for all students, including the factors related to racial disparities and poverty (Goddard et al., 2020). This gap in practice, therefore, is the focus of this project study.

Rationale

In 2016, the deputy superintendent of MPS issued a charge (personal communication, April 1, 2016) to create a collaborative planning process that can be used by teachers, preK-12, in all of the district's schools to cultivate CTE. The district began implementing the process in the subsequent school year. MPS's theory of action for school improvement was that by improving implementation of the collaborative planning process in district schools, CTE would be bolstered, which would result in increased student achievement. Donohoo's (2017) research supported such a theory of action, advocating that leaders need to create meaningful collaboration structures in which student academic data are interpreted and teachers establish goals. Benefits of CTE identified by Donohoo have also been confirmed by other researchers (Donohoo et al., 2020; Goddard et al., 2021; Goddard et al., 2015). In the MPS 2019 ESSA Strategic Consolidated Plan, district leaders concluded that the planning process was not being implemented well enough to bolster CTE, but they did not explain in what ways

implementation needed to improve. The MPS collaborative planning process featured the elements identified by Donohoo. MPS principals are responsible for implementing the collaborative planning process at the school level, so understanding their leadership related to the process will help district leaders understand how to improve implementation.

CTE has been shown to be significantly impactful on motivation of teachers, the ability to persevere in the face of roadblocks, teacher commitment, and student achievement (Goddard et al., 2000). In a meta-analysis of CTE studies, Eels (2011) discovered a positive relationship between CTE and student achievement. Hattie (2017) argued that CTE was more impactful than poverty. Vatou and Vatou (2019) observed a relationship between CTE and overall teacher job satisfaction. The development of CTE has great potential for improving learning in schools and sustaining the teaching force. For these reasons, the approach has been the focus of a good deal of recent research (Zhou, 2019).

Godard et al. (2020) examined the relationship between principal leadership, CTE, and student achievement. Although the authors found a marginally significant indirect link between principal self-efficacy beliefs and student achievement, mediated through CTE, they also recognized the need for additional research in the field. Donohoo (2018) and Godard et al. both propounded that additional research was needed to explore how different factors, such as specific leadership actions and behaviors, help to cultivate CTE. Fancera (2016) argued for the need to examine mutable practices that impact CTE, which this study did with principal leadership. Several researchers (Madimetsa et al.,

2018; Nordick et al., 2019; Zhou, 2019) specifically called for qualitative research to understand CTE within specific contexts.

MPS leaders used the results of the Maryland Report Card (MSDE, 2019) accountability system to determine that implementation of their collaborative planning process did not foster sufficient CTE. In this system, Maryland public schools were awarded up to 65 rubric points for academic indicators and 35 possible rubric points for school quality and student success. After tabulating the rubric scores in each category, MSDE provides a grade for each school up to 100 points. Public school districts were also assigned grades based on the scores of their schools. According to the strategic plan, at the elementary level, 47% of schools in English and 38% in math received less than half of the eligible rubric points for student achievement, and in the district's middle schools, 54% of schools in English and 62% in math received half of the eligible rubric points in student achievement. In 2020, MPS was not required to produce a consolidated strategic plan because state assessments were canceled due to COVID-19.

According to MPS's 2019 ESSA Consolidated Strategic Plan, district leaders concluded that fostering CTE through the collaborative planning process was the right strategy for improving student achievement. However, district schools needed to improve the implementation of the process in order to raise levels of CTE. The strategic plan indicated that the collaborative planning process entails analyzing and unpacking content standards, designing instruction based on evidence-based practices, analyzing evidence of student learning, designing assessments, promoting student agency, and job-embedded professional learning. The strategy of a collaborative planning process to foster CTE has

been supported in research (e.g., Cansoy & Parlar, 2018; Donohoo, 2017; Donohoo et al., 2020; Goddard et al., 2021; Jamil et al., 2019; Loughland & Ryan, 2020; Patterson & O'Brien, 2021). The purpose of this basic qualitative study was to explore how MPS's middle school principals cultivate CTE in their schools through the district's collaborative planning process. Exploring how these principals foster CTE may help to identify strengths and weaknesses of principal leadership in this area, which can be used in subsequent professional development opportunities for MPS's school administrators.

Definition of Terms

The following terms defined below were paramount to understanding the concept of CTE:

Affective states: Reading and interpretation of biofeedback in a given situation to reinforce a sense of efficacy (Goddard et al., 2000). It is one of the four sources of efficacy and collective efficacy. Principal responses to interview questions in this study may point to their perceptions about this term and CTE.

Collaborative planning process: A formal process in which teachers are empowered to work together to establishing learning goals, plan lessons and assessments, interpret student performance data, provide feedback, and solve problems related to student performance (Donohoo, 2017). The process aids in cultivating CTE (Donohoo, 2017). The lack of CTE has caused MPS to posit that their processes need to be improved.

Collective efficacy: The belief of a group that they can be successful in accomplishing their common goal with a specific context (Bandura, 2000). The concept

developed from efficacy and has been studied in a variety of settings, including with teachers in schools.

Collective teacher efficacy (CTE): The combined belief of a group of teachers that together they can successfully educate their given group of students (Goddard et al., 2000). It has the same four sources as individual efficacy (Goddard et al., 2000). The focus of this research study is on CTE and how leaders use collaborative planning processes to foster it.

Efficacy: An individual's belief that they can be successful in accomplishing a task within a specific context (Bandura, 1997). This is the foundational concept in exploring the power of belief system to promote agency. Understanding this concept, including its sources, helps one to better understand the concept of CTE in this study.

Enactive mastery experiences: Successful attainment of goals that lead to a greater sense of efficacy (Goddard et al., 2000). It is one of the four sources of efficacy (Goddard et al., 2000). Setting and monitoring goals is a key element in MPS's collaborative planning process, the subject of this study.

Social persuasion: The experience of being influenced by others to have a sense of efficacy (Goddard et al., 2000). It is one of the four sources of efficacy (Goddard et al., 2000). The use of MPS's collaborative planning process helps to foster this source.

Vicarious experiences: Times in which people see or hear about the success of others in similar situations that bolster efficacy (Goddard et al., 2000). One of the four sources of efficacy (Goddard et al., 2000). Collaborative planning processes provide structured opportunities for teachers to articulate their successes to teammates.

Significance of the Study

Research suggests that school leaders interested in successfully educating all students should focus on cultivating CTE (Donohoo, 2019). According to Hattie (2017), CTE has the biggest influence on student achievement. Several researchers have identified the importance of leadership in cultivating collective efficacy, arguing that CTE is a mediating factor between leadership and its indirect influence upon student achievement (Donohoo, 2018, Goddard et al., 2020; Sehgal et al., 2016). Godard et al. (2015) documented the importance of how principals can cultivate CTE by creating formal collaborative structures. This study contributes to the literature and addresses the local problem by exploring how middle school principals in MPS cultivate CTE through their collaborative planning process. If district leaders are better able to understand how principals lead the process, they may be able to develop professional learning to address areas of weakness. As leadership of the process is ameliorated, CTE may increase, possibly leading increases in student achievement.

Research Question

Exploring how middle school principals specifically foster CTE through the collaborative planning process may give district leaders insight into how and why the planning process is not yielding the results intended for the cultivation of CTE in MPS. District leaders in MPS may be able to use insights from my study to improve the principal leadership of the teams using the planning process. My study explored the following research question: How do MPS's middle school principals attempt to cultivate CTE among their faculty through the district's collaborative planning process?

Review of the Literature

Conceptual Framework

The enabling conditions for CTE (Donohoo et al., 2020) served as the conceptual framework for this study. The conditions consist of five of malleable contextual factors that aid in fostering CTE in a school: empowered teachers, cohesive teacher knowledge, goal consensus, embedded reflective processes, and supportive leadership (Donohoo et al., 2020). The conditions were first proposed by Donohoo (2017). Donohoo et al. (2020) operationalized each condition into a series of statements that illustrates what the condition looks like when put into practice, which resulted in the Enabling Conditions for CTE Scale. The scale consists of 18 statements with a Likert scale that can be administered as a survey to teachers at a school. For example, one way in which the condition of empowered teachers is operationalized is with the following statement: “The faculty agrees on what constitutes effective classroom instruction” (Donohoo et al., 2020, p. 157). Since the conditions are changeable, a leader can take actions to improve the conditions as a way of bolstering CTE (Donohoo et al., 2020). Donohoo et al. demonstrated that CTE is higher when the enabling conditions are strongly evident.

Many of the elements in the survey directly relate to the use of collaborative structures and to principal leadership. Consequently, the scale statements provide a useful lens for examining how middle school principals use the collaborative planning structure in MPS to foster CTE. In other words, the enabling conditions point out actions principals should take if they are going to use a collaborative structure to grow CTE in their schools. Adopting the enabling conditions CTE scale may help to define leadership

strengths and weaknesses with regards to implementation of the collaborative planning process. Clearly identifying strengths and weaknesses in the leadership of the collaborative planning process may aid the planning of professional learning for principals to improve implementation, which addresses the local problem MPS identified in its 2019 ESSA Consolidated Strategic Plan.

Review of the Broader Problem

CTE research can be categorized into various themes. For the sake of this study, research will be organized into four main categories: self-efficacy, CTE, leadership and CTE, and leadership models and CTE. These categories were selected for two reasons. First, they demonstrate how CTE emerged from the concept of self-efficacy. This is important because Bandura (2000, 2018) argued that CTE has the same sources as self-efficacy. Second, the purpose of this qualitative study is to explore how public middle school principals in a mid-Maryland suburban school district cultivate CTE in their schools through the district's collaborative planning process. Effective leadership is important for fostering CTE (Goddard et al., 2021). If MPS is not adequately cultivating CTE, then the district should consider the role that leadership has played in the implementation of the collaborative structure.

The Walden University Library was used to conduct a review of the literature. Through the library, several databases were located: EBSCO, ERIC, MEDLINE, Directory of Open Access Journals, Education Source, Science Direct, Scholar Works, Emerald Insight, Health and Psychosocial Instruments, Supplemental Index, and Business Source Complete databases. The following keywords were used to search the literature:

collective teacher efficacy and *leadership*. The term *collective teacher efficacy* yielded 767 citations, 120 of which were peer-reviewed in and written in English and were examined for the study. The combined terms of *collective teacher efficacy* and *leadership* yielded 119 citations, 39 of which were useful peer-reviewed articles written in English.

The abstracts of all located articles on CTE were read to determine relevance to this study, and relevant articles were then read in their entirety. Bibliographies of the aforementioned articles were also examined to identify other potentially useful articles. These articles were then located and read in full. The early research on leadership and CTE primarily occurred in the U.S. However, much of the more recent work on leadership and CTE within the last 5 years has been conducted in various settings across the world, including Turkey, Iran, Israel, Australia, and China. It appears as though international researchers are looking to ascertain if the promise that CTE holds for increasing students achievement is applicable within the cultural contexts of their schools. Nonetheless, studies in international settings are used in this review of the literature because researchers used the same survey instruments and conceptual frameworks that U.S. researchers used in their studies, and the findings have been consistent across settings. Some U.S. researchers have conducted recent studies on CTE and the ability of teachers to implement certain practices unrelated to student achievement. Examples include a study into the ability of teachers to address bullying (Reyes-Rodríguez et al., 2021), culturally responsive teaching (Chu & Garcia, 2021), and school-wide positive behavior interventions and supports (Deltour et al., 2021).

Self-Efficacy

CTE emerged from the foundational concept of self-efficacy in the social cognitive theory work of Bandura (2000, 2018). He posited that personal beliefs about one's efficacy partly motivate and guide people in their actions. Perceptions about one's efficacy incentivize human agency by giving people the sense that their actions can make a difference. Bandura believed that people are less likely to act if they believe they have little chance of influencing the outcome they hoped to achieve. Bandura argued that self-efficacy beliefs influence goals and expectations in a proactive manner, but they also shape the response of individuals in the face of adversity, such as barriers to success. Self-efficacy increases optimism, according to Bandura, and sustains effort in difficult times, leading to greater perseverance and positive affect in facing obstacles to whatever one is trying to achieve. Perseverance serves as an impetus to adaptation and growth for self-efficacy, according to Bandura's theory, so one's sense of efficacy continues to grow as one faces and overcomes new challenges to desired outcomes. According to Bandura, various professionals, whether lawyers or teachers, will have improved performance if they have high degrees of self-efficacy. Individual teacher efficacy would be of paramount importance, consequently, in schools with greater challenges in educating all students. Understanding the nature and impact of self-efficacy on performance has helped researchers better understand CTE.

The concept of self-efficacy is different than concepts related to self-regard, such as locus of control, self-concept, and self-esteem (Bandura, 2000, 2018). Locus of control is related and indicates the extent to which people believe themselves to have control in a

situation as opposed to external factors (Bandura, 2000, 2018). Self-efficacy is situated in a specific context so is task-specific. A teacher, for example, may have high degrees of self-efficacy with one class of students but low degrees with another class.

There are similarities between self-efficacy and collective efficacy, so research into self-efficacy also helps to understand CTE (Bandura, 2000). According to Sehgal et al. (2016), a teacher's sense of self-efficacy has been found to be positively related to three dimensions of successful teaching: delivery of curriculum, the teacher's role in facilitating interactions with students, and the role of regulating learning. For example, if a teacher were to begin having success with new instructional strategies in the delivery of curriculum, they may get a stronger sense of their ability to facilitate greater learning in their students. Their perception of self-efficacy would enable them to persevere during the challenges that teachers face in trying to educate all students. Collaboration and principal leadership were cited as factors contributing to a positive relationship between perceptions of self-efficacy and teacher effectiveness (Sehgal et al., 2016). Principal leadership and collaboration are key components of my study of how middle school principals cultivate CTE through MPS's collaborative planning process

Wang et al. (2015) found that teacher self-efficacy beliefs were tied to effects on teacher burnout, job satisfaction, illness, and intentions to quit. In their study, 523 primary and secondary teachers in Canada participated in their quantitative study by completing an online survey. The authors hypothesized an indirect relationship between teacher self-efficacy and levels of teacher burnout, symptoms of illnesses, and intentions to quit the profession. They also theorized a direct relationship between self-

efficacy beliefs and job satisfaction for teachers. Wang et al. found that teachers with self-efficacy in the ability to engage students in learning had higher degrees of job satisfaction and lower levels of burnout, symptoms of illness, and intentions to leave the profession. This study further demonstrated the importance of self-efficacy in educating students when there are barriers or challenges to educating all students.

Efficacy beliefs can be influenced, both positively and negatively, in a variety of ways (Goddard et al., 2020). Bandura (2000) identified four sources of self-efficacy beliefs. First, enactive mastery experiences are those prior instances of success that individuals have. According to the literature on CTE, when it comes to self-efficacy, success breeds self-efficacy, which breeds subsequent success. Second, vicarious experiences are those times when individuals observe or hear about others being successful in the given situation. For a teacher, this could mean observing exemplary teachers implementing a new instructional strategy. Third, social persuasion entails the comments of others and their impact on beliefs about potential success. This means the words of leaders, both the principal and teacher leaders, can be impactful in cultivating a sense of efficacy. Fourth, affective states involve how individuals reflect upon physiological responses and emotions as they relate to performance. This means that if a person experiences positive sensation in their body while engaging in a certain behavior then the person is more likely to repeat it. In the case of schools, leaders can cultivate efficacy in their teachers by addressing one or more sources of self-efficacy. According to Goddard et al. (2015), enactive mastery experiences may be the most powerful of the contributing sources.

Sehgal et al. (2016) found that collaboration and principal leadership are positively related to teacher perceptions of efficacy. Engaging in collaborative goal-setting, taking steps to motivate, and building capacity through professional learning were all leadership behaviors identified by Sehgal et al. (2016) to develop teacher efficacy. These behaviors are aligned to two of Bandura's (1997) sources of self-efficacy: vicarious experiences and social persuasion. In a mixed-methods study of principal instructional leadership behaviors and teachers' self-efficacy in Turkish schools, a significant relationship was found between instructional leadership and teacher self-efficacy (Özdemir et al., 2020). The idea that leaders play a role in developing a sense of efficacy among staff is important.

Collective Teacher Efficacy

Efficacy is not only a concept for individual analysis; it can also be considered from the collective perspective, according to social cognitive theory (Bandura, 2000). Collective efficacy begins with a given group's combined knowledge and skills, but it goes beyond that and includes the dynamic interdependent interactions of the collective (Bandura, 2000). Therefore, Bandura (2000) argued that collective efficacy is more than the sum of its parts. Conceptualization of collective efficacy includes the idea that individual human beings are social creatures and work in various socially constructed dynamics, such as teachers in a school, and the efficacy beliefs in a group consequently emerge as different than the sum efficacy perceptions of the individuals within it and appear qualitatively different (Kunnari et al., 2018). Bandura examined a plethora of research on collective efficacy, including research business organizations (Early, 1994;

Hodges & Carron, 1992; Little & Madigan, 1994), athletic teams (Carron, 1984; Feltz & Lirgg, 1998; Mullen & Cooper, 1994; Spink, 1990), military teams (Jex & Bliese, 1999; Lindsley et al., 1994), and city neighborhoods (Sampson et al., 1997). He found that the greater the collective efficacy of a given group, the higher their commitment to the task at hand, the more powerful their ability to persevere in the face of challenges, and the greater degree of their achievements.

CTE refers to the shared belief of a school's faculty that their combined efforts will be positively impactful on their students (Cansoy, 2020). CTE transcends the sum of the individual teacher's perceptions of self-efficacy (Kunnari et al., 2018; Schechter & Tschannen-Moran, 2006). CTE emerges through the dynamic interactions among various members of a group working together towards a common goal (Madimetsa et al., 2018). This makes sense because the functioning of a group requires a degree of collaboration, or interdependence, making it effective not only when the individuals have a strong sense of self-efficacy but also when the members work together as a unit to achieve common goals (Goddard et al., 2004). Consequently, CTE is a separate entity for leaders to manage in addition to the efficacy beliefs of individual teachers.

Researchers have generally accepted the four sources—enactive mastery experiences, vicarious experiences, social influence, and affective states—that build self-efficacy also contribute to CTE (Loughland & Nguyen, 2020). In their pioneering work, Goddard et al. (2000) declared that how teachers process and interpret experiences of the four sources of information that contribute to CTE are of paramount importance. Goddard et al. (2000) devised a model for how CTE works conceptually. In the model, a

school of teachers is charged with educating a group of students and have beliefs about their ability to do so. The collective beliefs of the teachers will be impacted throughout the year by the sources of CTE. When the teachers experience success in educating the students, their CTE will be strengthened by these enactive mastery experiences. When teachers see other teachers having success, the level of CTE is bolstered by these vicarious experiences. When school leaders persuade other teachers that they have the ability to educate their students, CTE is fostered through social influence. When teachers experience positive emotions by exhibiting behaviors that are impactful on student learning, CTE is strengthened through affective states.

Despite the early pronouncements of Goddard et al. (2000) regarding the four sources of CTE, there remain some disagreement about the factors that contribute to CTE. One research team (Berebitsky & Salloum, 2017) looked into the sources of CTE by conducting a 3-year study of 20 middle school mathematics departments in two large, urban districts. Specifically, they examined the role that teachers' social networks might serve as a possible predictor of CTE. Two concepts from social network research—network density and network centralization—were considered in relation to CTE. Network density describes the cohesiveness of a social structure and can facilitate sharing of knowledge and resources with deeper levels of cohesion, according to the authors. Centralization reflects the degree to which an individual or a few people dominate the network (Berebitsky & Salloum, 2017). The investigation revealed that there was a significant relationship with network density but not centralization. The strength of network density indicated that teachers connected with many colleagues to share and

gather new knowledge and procure resources rather than limiting themselves. In their interpretation of the results, Berebitsky and Salloum connected the work of social networks to two of the CTE sources: vicarious experiences and verbal persuasion. Finally, the authors asserted that one important implication of their research is that principals should build the capacity of teacher leaders to aid in improving instruction so the work is not centralized. One way that MPS builds network density is by adopting a common collaborative structure for planning and the review of student data.

Another research team that explored the sources of CTE, Loughland and Ryan (2020), framed their research to aid in the development of professional learning programs for teachers. They interviewed teacher leaders of Australian primary school-based teams in focus groups. They concluded that the communicative competency of the team leaders was an important antecedent of CTE because their ability to listen and speak on behalf of the team members allowed the voices of other teachers to be represented. When the participating leaders can communicate about the needs and progress of their teams, then professional learning can be delivered at their zone of proximal development, Loughland and Ryan concluded.

Surabaya (2021) identified teacher motivation as a more powerful influencer on CTE than the traditional four sources of enactive mastery, vicarious experiences, verbal persuasion, and affective states. His study surveyed 200 Indonesian teachers of Javanese, a traditional but not the primary language in Indonesia. Surabaya explained that the teachers were motivated by a desire to preserve this traditional language in a diverse country. The author noted that the study teachers viewed teaching challenges as

phenomena that can be overcome rather than permanent obstacles, which is one of the reasons why CTE is so important. This survey has limitations for U.S. researchers due to its context in Indonesia. However, the exploration of motivation as a possible source of CTE could be investigated by researchers in the U.S.

Influence of CTE

Researchers have found a strong positive relationship between CTE and student achievement for the past three decades. Hattie (2017) asserted that CTE is the most important influencer of student achievement. Hoogsteen (2020) challenged Hattie's (2017) claim by disputing the statistical analysis used to make such a bold assertion. Hoogsteen (2020) did not dispute that CTE has a positive relationship with student achievement but he stated that Hattie was overselling its potential impact on student learning. Hoogsteen (2020) cited a meta-analysis conducted by Ells (2010) in which CTE was found to be impactful on student achievement, but much less so than Hattie (2017) did despite using some of the same research studies as sources. Donohoo's (2018) literature survey supported Hattie's claim. She identified multiple studies that found evidence that CTE is stronger than the impact of a student's socio-economic status on achievement. Bandura (1993) conducted the groundbreaking research and found that CTE is significantly and positively related to student achievement. His was the first study, according to Goddard et al. (2000), to connect CTE with student achievement. In another foundational study, researchers found evidence that CTE was positively related to reading and math performance in urban elementary schools in a large midwestern district

(Goddard et al., 2000). The aforementioned researchers noted that teachers in schools with higher levels of CTE acted more purposefully to increase student learning.

Aydoğmuş and Serçe (2021) found CTE had a regulatory effect on the relationship between teacher satisfaction and professional burnout, and it was impactful on the relationship between job satisfaction and professional burnout. Lu and Mustafa (2021) found that CTE impacts learner engagement. Chu and Garcia (2021) discovered a positive relationship between CTE, culturally responsive teaching self-efficacy, and outcome expectancy beliefs, an important discovery for closing achievement gaps based on race. The role that CTE may play in impacting student achievement, especially in schools with higher rates of student poverty, makes CTE a promising area of focus for school leaders seeking to improve learning in schools.

Goddard et al. (2015) affirmed that CTE is a significant positive predictor of student achievement, even when a variety of factors were controlled for, including the background of students, specific schools, and previous student achievement. More importantly for this research study, they identified the instructional leadership of the principal as directly influencing CTE, through collaboration, and indirectly influencing student achievement through CTE. The practical implication for school leaders is that a principal can indirectly improve student academic performance by erecting and supporting formal collaborative structures, which directly contribute to higher levels of CTE.

In a major literature review, Donohoo (2018) affirmed that multiple studies found evidence that CTE is stronger than the impact of a student's socio-economic status on

achievement. Specifically, CTE was positively associated with a number of productive behaviors, including deeper implementation of improvement strategies, increased teacher leadership, higher expectations communicated by teachers, and an intensity of focus on academic pursuits. The research also indicated that CTE contributed to greater job satisfaction and commitment to students.

While the relationship between CTE and student achievement has been established for some time, Goddard et al. (2017) were the first to study the impact of CTE on achievement gaps. A mixed-methods approach was used to examine this issue in elementary and middle schools in a large urban district in Texas. Hierarchical linear modeling analysis was used to investigate student achievement and the Black-White achievement gap in math. They found a positive relationship between CTE and student achievement and a reduction by 50% of the gap between the scores of Black and White students. Focus groups were used to gain insight into how CTE works in those schools and revealed the important role principal leadership played in facilitating teacher collaboration and having a focus on school improvement.

Principal Leadership and CTE

Goddard et al. (2000) were the first to propound that principal leadership can increase student achievement by targeting CTE after finding evidence that CTE was positively associated with achievement in reading and math. Taking into consideration that enactive mastery experiences are the most powerful sources of CTE, but also the most difficult to orchestrate, they recommended some possible actions that principals could take to bolster CTE, including well-designed, strategic professional learning

experiences and action research projects. Goddard et al. also recommended that principals address the other sources of CTE, such as social persuasion and facilitating vicarious learning experiences.

Goddard et al. (2015) considered how leadership shapes teacher behavior, which indirectly leads to higher levels of student achievement, specifically in terms of the concept of collaboration. They found that schools with the lowest levels of student achievement had fewer formal collaborative structures and lower levels of instructional leadership. Schools with higher levels of achievement had greater levels of collaboration and stronger common efficacy beliefs. They found that collaboration served as a mediator between principal leadership and CTE. This finding led the researchers to posit the need for a deeper study into enactive mastery experiences to understand its place in collaborative structures. Goddard et al.'s study supports MPS's plan to build CTE through their collaborative planning process with the end goal being higher student achievement.

Prior scholarship had indicated that there are different routes through which principal leadership could indirectly impact student achievement, and trust was the key path, according to Tschannen-Moran and Gereis (2015). As part of their study into leadership trust and student achievement, the researchers examined several correlates of trust, including CTE. In the study, CTE was found to have a strong, positive relationship with trust, and the two constructs were considered to be vital to creating the context for student academic success.

Fancera (2016) found that prior academic success was the most important independent variable in his study of leadership's impact on CTE. In this study, prior math achievement had a moderately positive impact on CTE, leading Fancera to conclude that it could be targeted by leaders interested in bolstering a school's CTE. The study also revealed a strong negative correlation between the percentage of students who qualify for free lunch and CTE.

In another study on principal leadership, researchers examined its relationship with teacher self- and collective efficacy (Cansoy & Parlar, 2018). Four hundred and twenty-seven elementary, middle, and high school teachers participated in study. Participants were administered the teacher self-efficacy scale and the collective efficacy scale (Goddard et al., 2000), in addition to the effective school leadership scale. Correlational and multiple linear regression analysis on the data revealed positive and significant relationships between instructional leadership and self-efficacy and CTE. Both leadership and self-efficacy were also found to be positive significant predictors of CTE. While the authors utilized a leadership scale that synthesizes practices from several models of leadership, the authors made special mention of the potential for transformative and instructional leadership behaviors for having a positive impact on CTE. Several actions were identified as potentially useful for developing CTE, including establishing a clear and compelling vision, communicating clear goals for the school, using collaborative decision making, and coordinating and monitoring curriculum delivery.

One mixed-methodology study involved the interview of a small sample of primary school teachers from a larger sample of teachers who had taken Tschannen-Moran and Barr's (2004) collective teacher belief scale (Strahan née Brown et al., 2019). This interview included representatives of different levels of responsibility due to previous research correlating CTE to levels of responsibility. Two important themes emerged that could guide leaders who are mindful of the need to bolster CTE: stress management and support. Behaviors recommended to address these factors include, communicating clear and reasonable expectations, being visible and approachable, and employing collaborative decision making.

Goddard et al. (2020) tested the connection between a principal's own efficacy beliefs and CTE. They found the efficacy beliefs of principals positively predicted the CTE in their schools, and the higher levels of CTE predicted student achievement. In fact, the link between principal efficacy beliefs and student achievement were greater than achievement based on minority status and gender. The ability to educate historically underperforming groups of students is one important reason why CTE has excited so many educators. The researchers also concluded the following specific actions could improve CTE: organizing robust professional learning experiences, facilitating collaboration among teachers, and articulating clear schoolwide goals for the teachers.

Since professional learning has been recommended as a way for leaders to build CTE, Loughland and Nguyen (2020) studied the relationship between CTE and professional learning that is designed based on a theory of action. The authors believed that the four principles of effective teacher professional learning exist in the four sources

of CTE. A case study methodology was used to explore the relationship between CTE and the use of a theory of action in planning professional learning. Twelve primary teachers participated in this study in Australia. Loughland and Nguyen concluded that CTE should be employed as a conceptual model for planning effective professional learning. In other words, when planners develop teacher learning experiences with the idea of addressing and building CTE, they create a more efficacious experience for teachers.

Turkoglu et al. (2021) researched the relationship of organizational socialization and CTE through the mediating role of collaborative culture. They found that collaborative culture and CTE both increased with a rise in organizational socialization. These relationships are statistically significant, according to the researchers. This study further demonstrated the importance of collaboration between a principal and their teachers. It also supported that a salient focus for principals should be creating collaborative cultures.

A study by Patterson and O'Brien (2021) tracked teacher adoption of pedagogical routines through a collaborative inquiry process as a means of fostering CTE across school contexts for three years. The premise of this study is similar to MPS's use of a collaborative planning process as a way of cultivating CTE and also involves job-embedded professional learning. As a result of the study, the authors argued in support of principals using collaborative inquiry teams to provide teachers autonomy over their own professional development embedded in their work together.

Leadership Models and CTE

Instructional Leadership. Researchers have examined various leadership models to ascertain their relationship to CTE. Thien et al. (2021) studied the relationship among instructional leadership, CTE, and teacher commitment in independent Chinese high schools in Malaysia. They identified a significant, direct relationship between instructional leadership and teacher commitment to the school and students. This was significantly mediated by CTE. Although this study, and many other recent investigations of CTE, has occurred in a different context than U.S. schools, the consistency of results in a variety of contexts, including different countries, makes a compelling argument for their use in a study of the concept.

Al-Mahdy et al. (2018) also studied the relationship between principal instructional leadership, CTE, and teacher commitment in Oman primary schools using a variety of survey instruments. This study further affirmed the positive relationship among the three variables. In broad terms, they discovered that the mutable variables of instructional leadership and CTE positively impact teacher commitment. Through active instructional leadership, principals directly impact teacher commitment. Principals also indirectly influence commitment through the building of CTE.

One research team (Qadach et al., 2020) investigated the impact of a variety of factors related to principal leadership, the impact of the aforementioned factors on teacher performance, and the resulting impact on student achievement. The study included 130 schools encompassing a full range of the nation's socioeconomic status. Principal characteristics included principals' information processing and instructional

leadership with organizational learning mechanisms. CTE, teachers' affective commitment, and teachers' job satisfaction were examined. Data from national science and math tests were evidence of student achievement. Qadach et al. (2020) confirmed that organizational learning mechanisms were important mediators between instructional leadership and the teacher factors, including CTE. The study further demonstrated that CTE was significantly directly related to student achievement. The implication is that principals, in their capacity as instructional leaders, can indirectly impact student achievement by creating and supporting organizational learning mechanisms to grow CTE. In practical terms, principals may want to consider the use of data-driven, collaborative inquiry planning teams, such as MPS is doing, as organizational learning mechanisms that can cultivate CTE.

Facilitative Leadership. Facilitative leadership, another leadership model, was investigated by Nordick et al. (2019) in a qualitative study aimed at uncovering the attitudes, practices, and behaviors of principals that cultivated CTE. They interviewed 24 public elementary and middle school principals about how they facilitated CTE. Their data revealed the importance of supportive relationships, scaffolded collaboration, and efforts to advance expertise. Facilitating collaboration, which was done by principals through the generation of common goals and the building of a shared sense of unity in this study, has been endorsed by previous researchers as an important contribution to the sources of CTE (Goddard et al., 2004).

Transformational Leadership. Another leadership model that has been studied in CTE research is transformational leadership. Cansoy (2020) examined the impact of

transformational leadership on CTE using the transformational leadership scale and the collective teacher efficacy scale in elementary and middle schools. According to the study introduction, transformational leadership consists of concepts such as idealized effect, such as charisma, inspirational motivation, intellectual stimulation, and individual interest. Results from the study indicated a positive, moderate and significant correlation of transformational leadership with CTE.

Windlinger et al. (2020) investigated the differential effects of transformational leadership behaviors on teacher self- and collective efficacy. They found that there are transformational leadership behaviors that target individuals and groups in distinct ways. Behaviors associated with inspirational motivation were determined to be most impactful on CTE, but individualized consideration and intellectual stimulation increased self-efficacy. This study helps to understand variation in individual teachers in relationship to CTE. They also discovered that transformational leadership behaviors associated with CTE become stronger as the principal's span of control decreases. In other words, CTE grows when the principal empowers teachers rather than managing them too closely. This is an important insight for how principals in MPS manage the collaborative planning process. If principals manage it too closely, teachers will become too dependent of their leadership instead of developing their own group efficacy.

Transformational leadership was also tested, along with self-efficacy, as possible predictors for CTE (Ninoković & Knežević Florić, 2018). Using hierarchical regression analysis, the researchers showed that both variables were independent predictors of CTE. In addition, transformational leadership contributed significantly to CTE. The authors

explained their findings by sharing that principals, as transformational leaders, can build CTE by articulating a common vision, undergirded by core values, and operationalized by common objectives. The study also drilled down to identify the elements of transformational leadership that most strongly related to CTE. The two most powerful elements were communicating a clear vision and objectives and developing teachers.

Liu (2021) also studied the relationship of transformational leadership and CTE. In this study, the author considered four components of transformational leadership—setting directions, developing people, redesigning the organization, and managing the instructional program—and two aspects of CTE—group competence and task analysis. Liu surveyed 759 teachers in upper secondary Chinese schools and used regression analysis on the data. He found that setting directions and managing the instructional program has positive effects on group competence. In addition, developing people had a positive effect on task analysis. Consequently, Liu determined that developing people and managing the instructional program had positive effects on CTE as a single variable. Liu declared that the findings are specific to Chinese schools, but the relationship between transformational leadership and CTE is consistent with those found in studies from other parts of the world discussed above.

The relationship among transformational leadership, professional learning communities (PLCs), and CTE were studied by Voelkel (2022) to gain a better understanding of how the variables interact. Transformational leadership was found by Voelkel to be a strong predictor of PLCs and CTE. PLCs were identified as having a strong predictive value of CTE. The author concluded that principals should focus on

certain aspects of transformational leadership—shared vision, challenging the process, enabling others to act, and encouraging the heart—to strengthen PLCs and cultivate CTE.

It is important to note that one correlational study (Prelli, 2016) found an inverse relationship between transformational leadership and CTE. While the researcher said her prediction about the relationship between the two variables was inaccurate, Prelli (2016) did assert that there were still lessons to be gleaned from this correlational study of 93 teacher teams located in 15 Connecticut public high schools. First, team efficacy can vary from schoolwide efficacy. Second, the types of transformational leadership behaviors that a principal demonstrates should target the intended audience, team or school, because certain behaviors are more impactful on a team or the school.

Distributed Leadership. The impact of distributed leadership on CTE was also explored (Jamil & Hamzah, 2019). In this study, 592 secondary school teachers were surveyed regarding distributed leadership of school leaders, professional learning community, and CTE. Collective efficacy data were procured using the Collective Efficacy Scales (Goddard & Hoy, 2003). Structural equation modeling a variety of correlational tests were performed on the data, and a strong positive relationship was revealed between distributed leadership and CTE and professional learning community. Distributed leadership was also a strong predictor of the two independent variables. The authors recommended that this research be duplicated in a variety of other settings since CTE is a context-specific concept, but they were optimistic about the impact distributed leadership as a leadership model to deepen CTE. Consequently, distributed leadership is

another potential leadership model for principals to consider adopting in order to maximize CTE in their schools.

No Models. A study by Meyer et al. (2022) examined the-mediating role that CTE played between principal leadership and teacher collaboration purposefully eschewed using a specific leadership model because of their limitations. They surveyed 630 teachers in both primary and secondary public schools in Germany. Statistical analysis found that principal leadership had a significant indirect effect on teacher collaboration, with CTE playing a mediating role. Meyer et al. concluded that principals should play an active role in improving the quality of instruction in schools. To address this admonition, they advocated for principals to cultivate the mastery source of CTE by establishing clear achievement goals and using targeted professional learning focused on learning needs to improve teacher praxis.

Principals cultivating CTE is an important strategy for increasing student achievement in schools (Donohoo, 2018; Hattie, 2017). Several principal leadership models, including distributed leadership (Jamil & Hamzah, 2019), transformational leadership (Cansoy, 2020; Ninoković & Knežević Florić, 2018), facilitative leadership (Nordick et al., 2019), and instructional leadership (Fancera & Bliss, 2011), were studied by researchers over the years and were found to be effective in cultivating CTE in teachers. Consequently, rather than an adopting one specific model of leadership, it makes sense to explore specific behaviors and actions taken by principals to build CTE. Building and supporting collaborative structures is one of the key actions that principals can take to cultivate CTE (Donohoo, 2018; Goddard et al., 2004; Meyer et al., 2020;

Nordick et al., 2019; & Qadach et al., 2020). This study is the only qualitative study I was able to locate that addressed collective teacher efficacy being as effective as anticipated. A database search of “collective teacher efficacy” and “unsuccessful” or “not effective” or “failed” yielded only 1 germane result, a quantitative dissertation (Graham, J. C., 2021) examining why the use of professional learning communities failed to close student achievement gaps with CTE as a variable.

Problems With CTE

Hoogsteen (2020) calls for a closer evaluation of the CTE scholarship and contended that the theory of action in much CTE research is inaccurate, in part, because researchers see the development of CTE as the desired outcome. The common theory of action can be summed up as follows: beliefs precipitate actions that result in desired outcomes. In his paper, Hoogsteen took issue with the limited number of studies that have been used by researchers to make important claims about CTE. Eells (2011) only selected 26 studies that met his criteria and did not include an outlier study which would have reduced the level of impact statistically determined. Donohoo (2018) included 34 studies on CTE and student achievement. Finally, Hoogsteen claimed that Hattie used the same studies as Eells to calculate his impact but used a different methodology in calculating the impact. Hoogsteen (2020) argued that instead of focusing on beliefs, schools should focus on school processes that result in higher student achievement. The rise in achievement will increase CTE, and the higher CTE will serve as an impetus to future improvement.

The two oft-quoted meta-analyses—Eells (2011) and Hattie (2017)—in CTE research synthesize different data points into one number—the effect size. An effect size

is designed to show the level of impact of a variable. The studies have different variables and nuanced outcomes. The researchers employed meta-aggression to analyze these different studies and aggregate their results into one, easy-to-interpret number.

Unfortunately, meta-aggression has been called into question, leading to the finding that few meta-regressions are trustworthy in the literature (Schmidt, 2017).

Educators looking for research-informed strategies for school improvement should be careful to recognize the nuances present in CTE research studies and not overhype the potential of CTE to effect positive change in schools. This qualitative study is based on the premise that CTE is impactful on student achievement but is focused on exploring the actions principals describe they take to cultivate CTE based on conditions that have been statistically validated to enable CTE.

Implications

The purpose of this basic qualitative study was to explore how public middle school principals in a mid-Maryland suburban school district cultivate CTE in their schools through the district's collaborative planning process. Since CTE is dependent upon the context of a given group of teachers, being able to describe how principals cultivate CTE in another setting was important for the broader study of the concept. This study also addressed the local problem that MPS district leaders have not been able to cultivate CTE through the district's collaborative planning process. Findings from this study may help district leaders to ameliorate the ability of middle school principals to provide the necessary leadership conditions in which the collaborative process can flourish in their schools. According to the extant research (e.g., Cansoy & Parlar, 2018;

Donohoo, 2017; Donohoo et al., 2020; Goddard et al., 2021; Jamil et al., 2019; Loughland & Ryan, 2020; Patterson & O'Brien, 2021), principal leadership is essential for developing CTE, and collaborative structures can mediate the relationship between principals and CTE.

Findings and policy recommendations from my project study have been organized into a position paper prepared for district leaders. In the paper, I described middle school principal perceptions of their leadership of CTE in the context of the enabling conditions that facilitate CTE, which were identified by Donohoo et al. (2020). My position paper also includes recommendations on concrete ways district leaders can bolster the capacity of principals to create and maintain the conditions conducive to CTE. This may result in deeper implementation of the district's collaborative planning process.

Summary

In Section 1, the problem of how leaders perceive that they cultivate CTE was described broadly from research and within the context of a specific suburban public-school district in Maryland. The local problem entails the exploration of how middle school principals within this district make use of the district's collaborative planning process to cultivate CTE. The rationale of the study was explained as addressing the local problem and the gap in literature regarding qualitative studies of CTE, and definitions of key terms were provided. The significance of the study was explained as the results of the study may help the district to address the local problem and effect a deepening of CTE. The study's research question was stated. In the review of literature, the concept of CTE was unpacked in the review of literature, beginning with the notion of self-efficacy, and

includes a discussion of collective efficacy, collective teacher efficacy, leadership and CTE, and problems with CTE. The conceptual framework was identified as the enabling conditions of CTE. Finally, the possible implications of the study were explored.

In Section 2, The Methodology, the qualitative research design and approach will be discussed in detail. There will also be a discussion of the participants, including the selection criteria and procedures used to gain access to them. Finally, there will be a detailed explanation of the study's data collection, including how the data will be collected, the instruments used, and how the data will be analyzed.

Section 2: The Methodology

Qualitative Research Design and Approach

In this study I explored how middle school principals cultivate CTE through a collaborative planning process using a basic qualitative design, consisting primarily of interview data collection with eight middle school principals from a mid-Maryland suburban public-school district of approximately 45,000 students. In this section, there will be a description and justification of the basic qualitative methodology used to conduct this study, including an explanation of why other qualitative designs were not adopted. After detailing the research design, there will be a description and rationale of the sampling process. Since I am a virtual school principal in MPS, I will describe my strategy for mitigating any researcher bias when interpreting data. Finally, some possible limitations of the study are explained.

The problem addressed through this study was that MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. In order for the district to address the basic problem, leaders must first understand how middle school principals attempt to foster CTE through the collaborative process. By understanding how middle school principals use the process, district leaders can target an intervention designed to enhance the ability of middle school principals to provide the leadership necessary to cultivate CTE through the process. A basic qualitative research methodology provided a deeper understanding into the minds of MPS's middle school principals as they oversee implementation of the process in their schools.

Basic Qualitative Research Design

A basic qualitative design was used in this study because this methodology can best help answer the research question. This design helps the researcher understand the meaning participants have of the events, situations, and experiences in the study's context (Maxwell, 2013). According to Maxwell (2013), a qualitative design also assists the researcher to understand the context in which the study occurs and the processes in which the events occurs. Finally, qualitative research helps the researcher identify unexpected influences and phenomena as well as develop causal explanations (Maxwell, 2013). Developing causal explanations was often considered to be only the purview of quantitative researchers, according to Maxwell, but he argued that qualitative methodologies are best able to explain how a variable relates to another one in a local context. Whereas quantitative studies often answer the question to what extent the independent variable's variance impacts the dependent variable, qualitative research answers the question of how the independent variable, in this case the leadership of principals, impacts the dependent variable, the operation of a collaborative planning process in this study (Maxwell, 2013). Yin (2016) argued that qualitative research uses a flexible, iterative, research design and the collection of non-numerical data in the field. Yin also made clear that qualitative research designs are used in a variety of fields.

In this basic qualitative study, semi-structured interviews were conducted with eight middle school principals in a suburban mid-Maryland public school district about their leadership regarding collaborative planning teams in order to foster CTE. According to Ravitch and Carl (2021), qualitative research helps to comprehend people and

phenomena in their given contexts. Qualitative research also helps researchers understand how people make meaning of the situation studied (Ravitch & Carl, 2021). Exploring the thinking of middle school principals and how they perceive their leadership of the collaborative planning process was best achieved through a qualitative design. In their responses to the questions, these principals shared information through their own interpretive lens in their own school setting.

Justification for Research Design

A basic qualitative research design was adopted for this study because I sought to answer the question of *how*: How do middle school principals in a mid-Maryland public school district cultivate CTE through the district's collaborative planning process? Semi-structured interviews with principals yielded non-numerical data that provided insights into the thinking of principals in MPS. Although this research was influenced by the broader study of CTE, including the identified need to conduct more qualitative research (e.g., Madimetsa et al., 2018; Nordick et al., 2019; Zhou, 2019), the study also responded to a local problem, and thus has implications for the district studied. Improving principal leadership of the collaborative planning process may result in greater levels of CTE.

There are many types of qualitative research designs other than the basic qualitative study, but these other alternatives were not selected because they did not meet the needs of the study. One such methodology is the case study, and it is used when there needs to be an in-depth study of the participants and requires a significant amount of time (Yin, 2016). This depth of understanding is not needed to address the research question of how principals use the planning process to cultivate CTE. The time commitment needed

to conduct case study research also makes it not conducive to addressing immediate problems in school districts. Another type of qualitative research is a grounded theory study. The goal of this approach is to generate theory from quantitative or qualitative data (Carl & Ravitch, 2021). This is different than mere theory verification (Carl & Ravitch, 2021). This goal exceeds the purpose of this study, which was to understand middle school principals in a particular setting with the intent of exploring their own thinking regarding actions they take to foster CTE. Another qualitative design that was considered was an ethnographic study. In an ethnographic research, the researcher spends a good deal of time in the setting of the study in an attempt to understand the cultural meaning of the phenomena being investigated by using a variety of data collection tools (Carl & Ravitch, 2021). The ability to embed in a school setting in an attempt to decipher meaning was not necessary to respond to the research question of this study. Research already exists (Donohoo et al., 2020) on the conditions needed to foster CTE in a school. Examining principal responses to the interview questions of this study through the conceptual framework of the enabling conditions of CTE (Donohoo et al., 2020) should provide sufficient data to answer how middle school principals cultivate CTE through MPS's collaborative planning process.

Any form of quantitative methodology was not considered for this study for several reasons. First, in the basic qualitative study, I was not attempting to determine to what extent the independent variable impacts the dependent variable (Maxwell, 2013). Many of the studies cited in the review of literature were quantitative in methodology, examining the relationship between other factors and CTE and CTE and student

achievement. Second, in this study, I explored the thinking of a small group of principals in their own context, not to deduce generalizations, which quantitative research does (Maxwell, 2013). Third, non-numerical data are needed to provide deep understanding and nuance in the thinking of principals (Maxwell, 2013). Fourth, quantitative studies do not allow for follow up probing or elucidation of thinking (Maxwell, 2013). Finally, quantitative studies are not iterative in nature, thus cannot be adapted during their implementation to best answer the research question.

Participants

Criteria for Participant Selection

Purposive sampling was used to identify study participants from the full population of 13 middle school principals within the MPS school district. Since elementary, middle, and high schools have different teaching and teacher planning structures, implementation of the MPS district's collaborative planning process looks different at each level. To gain deeper understanding of how principals cultivate CTE through the collaborative learning process, targeting one level of principals makes the most sense. In addition, middle schools were identified in the MPS district's 2019 ESSA Consolidated Strategic Plan as having the poorest performance of the three levels of schools on Maryland's ESSA report card of schools.

An important consideration in sampling for a qualitative study is to sample a population that helps to answer the research question and address the study's purpose (Maxwell, 2013; Sargeant, 2012). Moser and Korstjens (2017) expanded upon Sargeant's (2012) understanding by declaring that the experience with the studied phenomena is the

most important criteria for selecting the participants. Maxwell (2013) argued that purposive sampling provides the researcher with representativeness of setting, people, and activities. Purposive sampling also provides a more nuanced picture for the study because it takes into account the differences in the participants (Maxwell, 2013).

Descriptive data on the principals' age, race, years in education, years as a principal, number of schools led as a principal, and subject(s) taught as a teacher were provided.

Justification of Participants

All of MPS's middle school principals were invited to participate in the study, and eight accepted the invitation. The sampling size varies in qualitative research, depending upon the nature of the investigation (Creswell & Creswell, 2018; Maxwell, 2013). Since this study explored how middle school principals in MPS attempt to cultivate CTE through the collaborative planning process, all of the middle school principals were targeted.

Seeking participation from each of MPS's middle school principals was based on the focus of this particular study: middle school principals cultivating CTE through the district's collaborative planning process. These principals have experience with the phenomena being studied, an essential element of participant selection in qualitative studies (Moser & Korstjens, 2017). An important assumption in this study was the variability in the level of success that the different principals have had in developing CTE through the collaborative planning process. Data saturation was sought during the study by investigating the research question until no new data or themes emerged.

Procedures for Gaining Access to Participants

The first step in gaining access to participants was to gain approval from the Walden University Institutional Review Board (IRB). One of the IRB's purposes is to review the specific methodology, including the sampling method, to ensure that the rights, safety, and welfare of the human participants is protected. After the IRB granted tentative approval (IRB number: 03-10-22-0135248), pending approval of the district in which the research would occur, an application to conduct the study was sent to the MPS district office that evaluates requests for research studies in the district. An overview of the study's purpose, research question, and methodology were required elements of the application. The district required that their participation be masked. The MPS district granted approval, and then the IRB authorized final approval of the study. Finally, an email was sent to each of MPS's middle school principals from my Walden University account inviting them to participate in the study by sitting for an interview via Google Meet of up to 60 minutes. In the email, I detailed the purpose, methodology, and significance of the study, including how the study addresses the local problem identified in district documents. I also explained confidentiality to protect the identity of participants. A follow-up email was sent 1 week later to any prospective participants who have not responded. I obtained electronic consent, which includes an explanation of their rights as a participant, from each participant prior to conducting an interview. A phone call was made 2 school days prior to each interview to confirm the details and answer any questions.

Establishing a Researcher-Participant Working Relationship

In a qualitative study, the researcher serves as an instrument in the research (Maxwell, 2013). As a virtual program principal in the district that served as the setting for my study, I am a colleague of the study's participants. I also co-led the team that developed the district's collaborative planning process, so I have intimate knowledge about what makes it efficacious. Consequently, I needed to convey that the information being shared will be masked and confidential. I explained that if I cannot appropriately mask the data, then ethically I am obligated not to share it (Maxwell, 2013). My relationship to the MPS middle school principals is a limitation in the study, but I do not have any supervisory or evaluative authority over them. Potential bias was addressed by using a well-formed research plan, which included soliciting participation from all of MPS's middle school principals, using a semi-structured interview, and employing a conceptual framework to guide coding of data. I used a written journal to reflect upon my thinking while interpreting the data as a further tool for addressing my potential bias.

The researcher-participant relationship began with the email soliciting their participation in the study. This email provided a description of the study, including the local problem, the methodology, procedures to maintain confidentiality, sampling approach, and possible implications. The interview began with an explanation of the participant's rights, including the right to withdraw from the study at any time, for any reason, without penalty. Participants were also informed that they may ask questions, pause, or refuse to answer any question. I then provided a brief overview of the study before proceeding with the questions. After the interview, I transcribed participant

responses in electronic writing. After coding all of the data and identifying themes, I conducted member checks with each of the participants by sharing my findings. I also offered each participant the opportunity to read this final paper.

Measures for Protecting Participants

Creswell and Creswell (2018) declared the importance of protecting the identity of participants in the study. Maxwell (2013) argued for not including data that can be used to identify a participant. To ensure confidentiality, participants are identified with the use of a pseudonym. In addition, any data that can be used to identify a participant were not shared in the project study paper, and interview transcripts were not shared with anyone and have only been used for the purpose of the study. Transcripts are preserved electronically on a password-protected computer for 5 years and then will be deleted. I also completed the National Institutes of Health's *Protecting Human Research Participants* prior to obtaining IRB approval.

Data Collection

Description and Justification of Data Collection Methods

Semi-structured interviews were conducted with the participating middle school principals in order to understand their thinking and perceptions related to the cultivation of CTE through MPS's collaborative planning process. Understanding the perspectives of the study participants is one goal of qualitative research (Maxwell, 2013; Ravitch & Carl, 2021). The interview entailed specific questions planned in advance for all participants. Some follow up probing questions were also posed to elicit clarification or elaboration of the responses given by the participants. Use of an established set of questions for the

interviews helped to mitigate inherent researcher bias because every participant began with the same queries. To further address researcher bias, I answered the interview questions myself prior to interviewing any participant to acknowledge my own understanding of best practices in providing leadership to the collaborative planning process.

Qualitative Data Collection Process

Each participant was interviewed separately via Google Meet using a semi-structured interview approach. Interviews were recorded on Google Meet and an iPhone 13 transcription application called Otter. At the beginning of the interview, a definition for CTE was read aloud. The interview protocol of open-ended questions (see Appendix B) was developed based upon the enabling conditions of CTE. All participants received the same questions from this protocol but were also asked probing questions based upon their responses. Here are a few of the questions that were asked of the participants:

1. How are teachers entrusted to make important decisions in the collaborative planning process?
2. How are teachers provided authentic leadership opportunities in the collaborative planning process?
3. How do you acknowledge the accomplishments of individuals and teams regarding the collaborative planning process?
4. How do you ensure teachers use the collaborative planning process to reexamine the extent to which teaching practices support the learning of all students?

Combined responses to the 14 interview questions posed in my study were sufficient for answering the research question. All of the interview questions were derived from Donohoo et al.'s (2020) list of enabling conditions, but only enabling conditions related directly to leadership and collaborative planning structures were used to draft the interview questions. The enabling conditions served as the conceptual framework for this study and helped in exploring each middle school principal's thinking about their actions related to the planning process and CTE. The interview was the best way to get participants to explain their own thinking in depth.

Interviews were conducted based on a mutually convenient date and time. I informed the participating principals that their names will be kept confidential, and data that could identify them will be omitted from the study. An explanation for the need for open and honest responses was provided. Interviewees were informed of their right to stop the interview at any time without repercussions or refuse to respond to any question that is posed. Participants were also informed that they may pose questions themselves during the interview. The interviews were scheduled for 60 minutes, and I procured permission through the written consent form to record all interviews for the sake of producing transcriptions. After coding the data and identifying themes, member checks of the findings were conducted verify the findings.

Systems for Keeping Track of Data

Interview recordings were stored on a personal password-protected laptop hard drive. Transcriptions were saved as text documents and also saved on the same computer before being deleted from the Otter iPhone application. After 5 years they will be deleted.

Following each interview, transcriptions were drafted for analysis and labeled using pseudonyms for each of the study participants. Transcriptions were also stored on the laptop. The pseudonyms and personal names were stored on a separate document in case additional contact was needed to clarify a response. During the coding process, a journal was kept to aid in the generating of themes. As new transcripts were coded, new themes emerged, and existing ones were revised.

Procedures for Gaining Access to Participants

Obtaining approval from the Walden University Institutional Review Board was the first step towards accessing participants. Once the study was approved, an application to conduct a research study in MPS was submitted and approved by a review committee. Upon receiving Institutional Review Board and district approval, prospective participants were sent an email describing the purpose, methodology, and significance of the study, including how the study addresses the local problem of exploring how MPS's middle school principals cultivate CTE through the collaborative learning process. The email also explained confidentiality and masking to protect participants. Interested principals were emailed a consent form and responded with an electronic consent.

Role of the Researcher

One goal of a qualitative researcher is to try and understand the unique perspective of each participant (Maxwell, 2013). As a principal of 20 years in the district that is being studied, I have personal professional relationships with each participant. Therefore, it was incumbent upon me to emphasize confidentiality and the role ethics play in conducting research so that I received honest responses. This also meant that I

needed to identify my own potential biases of the participants and the importance the collaborative planning process should play in cultivating CTE and increasing student achievement. I did this by keeping a reflective journal in which I first responded to the interview questions prior to interviewing any participants, so I could acknowledge what I perceived to be best practices.

Data Analysis

How Data Were Analyzed

Following each interview, transcripts were verified for accuracy by comparing the text with the recorded interview. The coding process was adopted from Miles et al. (2019) and entails several cycles of coding. During the first cycle, holistic coding was used to summarize data large units of data with short phrases. For example, the code “master schedule” was used to summarize the following answer to a question about how the collaborative planning process was used to ensure teachers have shared beliefs about what constitutes effective instruction, as Principal C shared:

Well, it has a lot to do with the schedule, too. You know, working closely, I think about a subject area like math, building the master schedule with the math specialist, which we just did, for looking out for next year for the person who’s on what team. It’s a bit of a puzzle. There are ways to have good people on the teams with each other. We know that X-teacher is going to do well with co-taught classes. And we know this teacher does well with honors.

An electronic spreadsheet was used to organize the data to aid in manually coding it. Here are some examples of prevalent holistic codes identified in my study: formative assessment, data, master schedule, and formal observations.

After the initial cycle of coding all data holistically, a second cycle of coding occurred in which patterns were identified and coded as themes. Codes were based on the relationships and connections among the data, which included differentiating between similar and contrasting ideas (Miles et al., 2019). The inherent danger in the coding process was to force explanations that removed the nuance and contradictions in the data that have been collected (Miles et al., 2019). Codes and themes were considered within the context of existing research on CTE.

Holistic codes were developed from the first cycle of coding to identify a theme during the second cycle of coding. The following were holistic codes: master schedule, meeting schedule, participation, prioritize, and group norms. Master schedule was a code for comments made by seven out of the eight participants. The phrase, meeting schedule, was a code which related to comments made by six out of the eight participants. All of the participants spoke about the importance of the schedule in influencing the effectiveness of the collaborative planning process in their schools. From these codes, the theme of schedules and success was identified.

All themes from the second cycle of coding were based on the first cycle of codes. A priori coding was not used to identify themes. Each theme with their contributing codes is discussed in the findings. The themes are then discussed within the context of the conceptual framework—the enabling conditions of CTE (Donohoo et al., 2020).

Quality and Accuracy of Evidence

Qualitative researchers must recognize that their beliefs, values, and attitudes will shape any interpretations of the data (Miles et al., 2019). This means it is imperative for researchers to recognize their relationship to the participants, the setting in which the research occurs, and the topic of study to bring to light their own implicit biases (Miles et al., 2019). One way to tackle this challenge was to adopt procedures that assure the accuracy and credibility of the data. In this project study, member checks were the primary tool for verifying the accuracy of evidence, but the findings were also compared to findings from other research studies on CTE. Reflective journaling was also used to mitigate my potential bias.

Dealing With Discrepant Cases

The temptation in analyzing qualitative data is to overlook or smooth over outliers (Miles et al., 2019). In this study, there were no discrepant cases. Participants' responses reflected a general understanding of how the collaborative planning process should work, and the interview questions were very specific. In some cases, MPS principals suggested different ideas about how they addressed a component of the collaborative planning process. For example, one middle school principal, Principal B discussed the importance of having group norms when speaking about the importance of schedules. No other MPS principal mentioned this idea as being important, but I still discussed the response in the narrative about the given theme. Because this study was descriptive in nature, all data were used to provide a nuanced understanding of principal thinking about leading the collaborative planning process.

Data Analysis Results

Review of Data Collection Process

Data were gathered from semi-structured interviews of eight MPS middle school principals who were participants in this study. Each of the interviews were conducted using Google Meet. Four of the participants had served fewer than 5 years as a school principal. Seven of the eight participants were male. Seven of the eight participants required weekly collaborative planning process team meetings at their respective school site. One participant required two meetings per week. The participant interviews, which lasted up to 60 minutes, consisted of 14 open-ended questions composed from the Enabling Conditions of CTE Scale developed by Donohoo et al. (2020). Participants were asked follow-up questions to encourage elaboration and clarification of their initial responses. Interviews were recorded using a Google Meet extension and with an iPhone 13 transcription application called “Otter.” Transcriptions were saved as text files and were immediately transferred to a secure, password-protected laptop before being deleted from the iPhone application. I listened to the Google Meet interview recording to verify the accuracy of the transcripts and made redactions if transcription software inaccurately captured what was said, as necessary. Data were organized on a spreadsheet by participant and according to each question posed to aid in locating patterns and commonalities. Participants were masked by assigning a pseudonym to each transcription, beginning with “Principal A” through “Principal H.” All data files were saved on a secure, password-protected laptop.

Findings

This study was developed in response to a local problem and a gap in practice in MPS. The problem addressed through this study was that MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. School principals were responsible for overseeing the implementation of the collaborative planning process in their respective schools, so gaining a deeper understanding of how principals saw their leadership of the process may help to develop an improvement plan for the problem. Therefore, this study answered the following research question: How do MPS's middle school principals attempt to cultivate CTE among their faculty through the district's collaborative planning process? This study was also conducted within the context that there is a dearth of qualitative studies on CTE. Much of the previous research on CTE was conducted using quantitative methods.

The conceptual framework for my study, the enabling conditions of CTE (Donohoo et al., 2020), identified five conditions which were correlated with high levels of CTE: empowered teachers, goal consensus, embedded reflective practices, cohesive teacher knowledge, and supportive leadership. One of the conditions, goal consensus, does not pertain to collaborative planning teams so was not addressed in my study. Donohoo et al. (2020) operationalized each of the five conditions into several statements. For example, one statement linked with cohesive teacher knowledge was: "The faculty hold shared beliefs about instructional approaches that are most effective for student learning" (Donohoo et al., 2020, p. 157). But what does that look like in day-to-day practice for teachers in a specific school? School leaders deal with real people, who

confront real challenges, with real students—not statistics from surveys. School leaders need a more nuanced understanding of these conditions in practice to provide effective leadership that results in learning for all students. The themes were not dictated by the conceptual framework. The themes were determined in response to the holistic codes, so the conceptual framework was not used a priori to identify themes. However, once themes were identified they were examined to determine consistency with the conceptual framework.

Six themes were identified during the second cycle of coding. The identified themes were deference, formal and informal leadership, acknowledgement of accomplishments, job-embedded professional learning, schedules and success, and openness to feedback. Below is a discussion of how each of the themes emerged from the data.

Theme 1: Principals Showed Deference in Trusting Teacher Professional Knowledge and Ability

One theme that emerged from the data was that middle school principals were deferential in trusting the professional knowledge and ability of their teachers. Codes related to this theme (see Table 1) were identified from participants' responses to questions about ensuring certain conditions were in place. For example, participants were asked the following: How do you ensure teachers use the collaborative planning process to re-examine the extent to which teaching practices support the learning of all students? Another question inquired: How do you ensure teachers use multiple sources of evidence in the collaborative planning process when considering student progress and achievement

over time? One question directly asked about entrusting teachers: How are teachers entrusted to make important decisions in the collaborative planning process?

Table 1

Theme 1: Principals Showed Deference in Trusting Teacher Professional Knowledge and Ability

Code	Respondents	% of participants' response
Trust	8	100%
Ownership	6	75%
Independence	6	75%
Risk-taking	4	50%
Process	3	37.5%
Verification	2	25%
Leadership Oversight	2	25%
Common Scoring	2	25%
Documentation	1	12.5%
Lesson Delivery	1	12.5%

Principals C, F, and G revealed strong deference to the skills and knowledge of their teachers. Principal C said, “I’ve always, you know, reinforced that the planning and the implementation of the execution is really, is really up to them, that they have the tools.” Principal F shared, “I have tried to give teachers as much trust as possible.” Principal G explained, “Well, I mean, I think you know, teachers overall, I mean, we want teachers to be able to come together and trust them to soon to understand what it is they they’re aiming to do for students. And so obviously, it starts with, you know, their content mastery.” This principal furthered explained, “I think this allows them to be able to, you know, lead themselves. Right? So, you know, as...the administrator, even if I’m going in, I want to see that they’re...taking the opportunity to, you know, lead themselves.”

Principal D declared that “you want to be able to trust your teachers.” Principal D explained that this trust entails valuing teachers’ insights from their classrooms while delivering instruction. Teachers are a “part of the process, rather than being top down,” according to Principal D. This principal trusts teachers to take decisions made collaboratively in planning meetings and implement them in their own classrooms. Principal D saw deference to teachers as occurring within a “framework” in which assessment data provided some accountability. An important part of the framework was alignment of the school improvement goals and the work of teachers in the collaborative planning process, remarked Principal D. This principal said, “I think it’s going to be on the data. I mean, you can sit at a [collaborative planning process] meeting and just look at the data and try to make decisions as educators fully trusting that your teachers are content area experts, are able to design activities that are going to meet the needs of their kids.”

Principal E explained that teacher empowerment was dependent upon the experience level of the teachers. Experienced teachers who have demonstrated success in their teaching are afforded more deference than newer teachers. Principal E said, “So honestly, a lot of it has to come, comes from the situation and the level of experience and expertise.”

Theme 2: Middle School Principals Empowered Teachers in Formal and Informal Leadership Positions to Guide the Collaborative Planning Process

Another theme that was developed from the data was middle school principals empower teachers in formal and informal leadership positions to guide the collaborative

planning process (see Table 2). Participants shared how they used formal teacher leadership positions, such as department chairs and teacher specialists, to guide the process. They also talked about how they empower all teachers to drive the process as a way in which all teachers are informal leaders. Data relevant to this theme was obtained from several questions. In one question, principals were explicitly asked about leadership: How are teachers provided authentic leadership opportunities in the collaborative planning process? Leadership was also addressed by participants when they were asked how they ensure certain conditions were in place. For example, one question asked: “How do you ensure the collaborative planning process determines and cultivates shared beliefs about instructional approaches that are most effective for student learning?”

Table 2

Theme 2: Middle School Principals Empowered Teachers in Formal and Informal Leadership Positions to Guide the Collaborative Planning Process

Code	Respondents	% of participants' response
Department Chairs	8	100%
Teacher Specialists	8	100%
Drive Process	7	87.5%
Lead One Another	4	50%
Facilitate	2	25%
Professional Development	1	12.5%
Conflict	1	12.5%
Teacher Input	1	12.5%
Culture of Collaboration	1	12.5%

Participants of the study saw teacher involvement in the collaborative planning process as informal teacher leadership. Most meetings of the collaborative planning process involve two teachers of the same grade level and subject area who share common planning time. These meetings often, but not always, included a school administrator,

such as the principal or an assistant principal, and a formal teacher leader, such as a department chair or teacher specialist. Sometimes the formal teacher leader or administrator leads the process. Other times, they are participants or observers.

Principal H empowered a teacher leader, the math specialist, to provide authoritative direction in collaborative planning process meetings with math teachers. Principal H's assumption was that the math specialist was the expert at teaching mathematics in the school. With math teams, Principal H saw their involvement primarily as enforcer of expectations if the teachers were not following the lead of the math specialist: "If [the math specialist] feels like they're going too far away...they're not making connections, then I'll go in and attend the next [meeting]." Implicit in Principal H's response is the idea that his attendance at the meeting would compel greater compliance with the direction of the math specialist. Teachers were empowered to some degree on the math teams, but their degree of participation was within the leadership direction of the teacher specialist.

One study participant, Principal B, also emphasized the importance of formal teacher leadership, such as department chairs or specialists, in collaborative planning process meanings. Formal teacher leadership, according to Principal B, was needed to ensure "we're moving forward." However, Principal B also expressed the importance of giving everyone a voice in the planning process. They asserted that the adoption of group norms at the beginning of the school year created an environment in which all planning process participants could contribute. Principal B's leadership gave empowered teachers more input than Principal H.

Principal F saw the involvement of their department chairs in the collaborative planning process as key to building the instructional capacity of teachers in his school. According to Principal F, “We’re allowing my department chairs, whenever possible, to lead those meetings. It’s different when you and I say something...when we’re giving the direction, when we’re asking the questions.”

Principal C, in discussing the make-up of a planning team, shared, “I mean, there’s just two of them. They are leading one another.” They explained that they share best practices and evaluate their teaching performance by examining assessment data. Through the planning process, the teachers learn from each other.

In another school, the principal expressed concern about their formal teacher leaders asserting too much control over the direction of the planning process. Principal A indicated that strong leadership by their math specialist restricted input from the classroom math teachers, which they saw as detrimental to the effectiveness of the team: “Whereas, I’d much rather the specialist, in those particular situations, just be a part of the group and let the group authentically have conversations about curriculum, about standards.” Principal A feared that the assertive control of the specialist inhibited productive conflict: “They’re discussing a strategy, but the group doesn’t agree on a strategy, and sometimes I fear that that’s not there because the specialist is in the room.”

A different participant, Principal B, saw informal leadership reflected in teacher contributions to the planning of the school’s professional learning activities. Principal B said, “It’s not having just the administrative team establish the PL [professional learning] that’s needed. But it’s having everybody have a voice as to what they need.”

The collaborative planning process empowered informal teacher leadership through the collaboration of more experienced and less experienced teachers, according to Principal H. In this school, “It worked out that we had some older teachers and some newer teachers, so that came natural mentorship.”

Several principals saw their role in the process as important formal leadership. Principals B and H believed that their participation in the collaborative planning process meetings was essential to nurturing cohesive teacher knowledge. Principal B asserted, “I think it starts from the top down, and I think in order to have buy-in that staff needs to know that the administration...is part of the process.” Principal B said they bring resources to stimulate the conversation. Principal H saw their participation in the process as vital to challenging teachers as to why they plan certain activities: “We’ve kind of all got to be part of the conversation and really begin to challenge the why.” They shared a story about a social studies teacher who planned a quilt activity, but the principal could not see how the activity was related to curriculum standards.

Theme 3: Principals Acknowledged Teacher Accomplishments in the Collaborative Planning Process

According to the enabling conditions of CTE (Donohoo et al., 2020), teacher accomplishments in educating students should be acknowledged by school leaders. One of my study’s questions explicitly asked principals about this: How you acknowledge the accomplishments of individuals and teams regarding the collaborative planning process? Principals indicated that acknowledging teacher accomplishments was essential to the success of the collaborative planning process teams but did so in a variety of ways. Only

three codes could be identified that were related to at least half of the respondents (see Table 3).

Table 3

Theme 3: Principals Acknowledged Teacher Accomplishments in the Collaborative Planning Process

Codes	Respondents	% of participants' response
Conversations	6	75%
Highlighting	4	50%
Celebration	4	50%
Observations	3	37.5%
Principal Participation	2	25%

Study participants named several common ways in which they recognized the work of teachers through the collaborative planning process: affirmation during faculty meetings and in school newsletters, data review conversations with planning team teachers, and conversations with individual teachers after formal or informal classroom observations. Having conversations with teachers, either after observations or during data meetings, was the most common method principals used to affirm the success of teachers as part of the collaborative planning process. Principal C looked to have these conversations in a variety of venues:

So there's those individual times, you know, based on a walkthrough, or just popping in that you're able to have those follow-up conversations. Then there's the formal observation process where you have those purposeful dialogues and acknowledge the good work they have done.

One participant, Principal B, indicated that celebration was embedded into the planning process itself. They explained that every collaborative planning process meeting

begins with each participant sharing a celebration with the rest of the team. Principal F spoke about the importance of celebrating small wins during the collaborative planning process: “Success breeds success.” This comment from Principal F illustrated an understanding of how mastery, the most important source of CTE (Goddard et al., 2000), shapes efficacy. Principal E emphasized the importance of celebration in the planning cycle of the process: “The celebration part is important. Acknowledging the work they do.”

Several principals looked for ways to highlight the work of individuals and teams, so others could learn from them. Principal A said, “Sometimes I will in faculty meetings pinpoint the instruction that I’ve seen as I’ve done walkthroughs....I might mention the teacher as an example of a stellar lesson or a great way that they were able to connect with kids.” Principal H highlights the work of teachers in the staff newsletter and at faculty meetings.

Theme 4: Principals Saw the Collaborative Planning Process as Job-Embedded Professional Learning for Teachers

Study participants explained how the collaborative planning process provided job-embedded professional learning for teachers (see Table 4). Several questions in my study focused on how the collaborative planning process cultivates common knowledge among teachers regarding effective teaching and assessment practices. For example, one question asked: How do you ensure the collaborative planning process cultivates agreement among teachers about effective assessment strategies that are most impactful? One question that yielded data relevant to this theme focused on the use of practices that

promoted reflection on the part of teachers. That question was: How do you ensure teachers use the collaborative planning process to seek feedback from students and use it to adjust their instruction?

Table 4

Theme 4: Principals Saw the Collaborative Planning Process as Job-Embedded Professional Learning for Teachers

Codes	Respondents	% of participants' response
Feedback	6	75%
Formative Assessment	6	75%
Data-informed Decision Making	6	75%
Observations	3	37.5%

Principal A explained, “And it really bears itself out when you begin to take a look at formative and common assessments.” Teachers in his school are expected to administer common formative assessments during and after teaching to evaluate their impact on student learning. According to Principal A this leads to conversations such as “Well, my kids did much better on this while yours seem to struggle. What was the reason for that?” Trying to answer the aforementioned question was a form of job-embedded professional learning.

Principal E described the use of formative assessment as a tool that teachers use to conduct “your own little home study” about which instructional strategies are effective. He proclaimed, “Let’s see what the data tell us.” In Principal E’s school, teachers “keep looking at the data and use the data to guide your instruction, and particularly the strategies and practices.” If the data are not what you want them to be, according to Principal E, “then reevaluate the practice or the strategy.”

Principal H explained that it is important to question the feedback from formative assessment data: “We’re looking at these data points like this. And what did you do that was effective? And have the conversation why they think that was a factor.”

Principal E raised the issue of data literacy, or the ability to understand what story the data were telling. Data literacy also entails knowing how to respond to the evidence. Principal E contended, “The formative assessment is only as good as, I think, as the ability to analyze it, figure out what the data is telling you, and then provide kids with the necessary feedback in or for them to make improvements.”

In Principal A’s school, teachers are expected to administer common formative assessments and engage in common scoring, where teachers exchange student papers to grade blindly and discuss the results, as part of the collaborative planning process. Common scoring deepens teacher understanding, according to Principal A, of what constitutes an effective response to a given task prompt. Principal A said, “And there’s not really a leader in the group. You’re just having a conversation about, well, here’s why I gave that score to a particular student.” Principal A further said, “But when I have done that, it’s eye opening that the teachers aren’t even necessarily on the same page what the rubric is saying.” In other words, teachers are grading according to their own standards, not those provided in the scoring rubric, according to Principal A.

Principal C emphasized that they ensure teachers use assessment data to adjust instruction through the formal observation process. MPS’s observation process requires four observations of non-tenured teachers and two of tenured teachers who are in an evaluation year, which is only two of every five years for tenured teachers holding

advanced certificates. This principal said that he has “conversations” with teachers where they discuss different methods of assessments. He encourages informal assessments, such as exit tickets and warm-ups. Principal B also said that the formal observation process was an important way in which he promoted the use of data analysis and adjustment of instruction.

Having discussions about assessment data during the collaborative learning process is another way Principal B promotes teachers using evidence of student learning to inform their instruction. Discussions about student learning was anchored in the content standards in this school. Principal B shared, “Is it working? Is it not work? And, and with that I rely on my specialist to help that too. We make sure that it aligns back to the standard.” Principal B also shared that he relies upon the formal observation process

Not all principals believed their teachers were effective at using reflection to guide their professional growth. Principal H candidly admitted, “I think that’s an area that we as a school struggle on. I think teachers, when you talk about getting feedback from students, I do have teachers, you know, they’ll say, well, we should do this, but I don’t. I would say that’s an area of weakness.”

While Principal G did not describe his teachers as weak in employing embedded reflective processes, he did raise the issue of the need to build the capacity of his teachers in this area. He explained, “I think we often forget that there are experts out in the field, and, you know, I think you want to make sure that people are properly professionally developed.” Principal G asserted that assessment data analysis requires some level of

expertise: “It can get confusing....You have to have somebody there to understand what, what the data is that they’re looking at.”

Principals F and G suggested that teacher cohesive knowledge was built through a reflective process in which a district and state assessment data were reviewed using several data warehousing sites to which principals had access. As a result of the data review, school improvement goals were generated and formalized in a plan. These principals emphasized the importance of examining multiple data points and using the school improvement plan to drive the work in the collaborative planning process.

Theme 5: Principals Use of Different Schedules Contributed to the Collaborative Planning Process Success

Another important theme was that principals connected successful implementation of the district’s collaborative planning process to their use of various schedules, including the master schedule for the entire school and the scheduling of team planning meetings (see Table 5). Questions that yielded data for this theme were focused on how principals provide supportive leadership for the process, such as this one: How do you support teachers as they engage in the collaborative planning process? Another question asked: How do you ensure that teachers have sufficient time to engage in the collaborative planning process?

Table 5

Theme 5: Principals Use of Different Schedules Contributed to Collaborative Planning Process Success

Codes	Respondents	% of participants' response
Master Schedule	7	87.5%
Meeting Schedule	6	75%
Participation	3	37.5%
Prioritize	2	25%
Group Norms	2	12.5%

All of the eight participants earmarked certain teacher planning periods for collaborative planning process work. Principal E said, “We sit down at the beginning of each school year, the summer prior as we are planning for the upcoming school year, and one of the first things we do is carve out that time for teachers and we share that schedule with teachers.” Principal E went on to say, “And they know not to plan things around that time.” In their school, teachers who teach the same grade-level course meet in small teams, usually comprised of two teachers and a teacher specialist or a school administrator. More importantly, according to Principal E, the process has become a part of the school’s culture, so teachers continue to engage in the collaborative process outside of the time formally allotted for such meetings to occur.

Principal C took a broad strategic approach to the development of cohesive teacher knowledge by beginning with the master schedule. He declared, “ Who will they be teamed with, and who they are going to the collaborative process with, that’s to me, that’s one of the main ways of really building that capacity.” By teaming teachers

together in strategic ways, considering their strengths, they can learn from each other, Principal C offered.

Principal A put it rather succinctly: “Schedule it and prioritize it. It has to be a priority.” Like Principal E, Principal A saw the importance of embedding the collaborative planning process into the school’s culture: “It’s really just valuing the time it takes to have those conversations that need to be had and not, not as any obligation, but just as a, as a cultural thing.”

Meeting weekly was also an expectation in Principal B’s school, and time was earmarked in the schedule for it to occur. Principal B said, “It goes back to that building of the master schedule, and then making sure, more than previously, we would meet every week. So that was the expectation.” Teachers in Principal B’s school also voluntarily met to engage in the collaborative planning process outside of the time scheduled to do so.

Some schools organized collaborative planning process meetings that included an entire content area department, such as language arts or math. But the purpose for setting aside time to engage in the process was the same: to increase student achievement. Principal D summarized this sentiment with a question: “And so if I don’t build a master schedule that meets the needs of our kids by creating opportunities for my staff to collaborate with their departments..., then how can I expect this, how can I expect there to be lasting change?”

One participant, Principal F, explained how he uses money from his budget to pay teachers to meet as departments after school in addition to the weekly grade-level content

area collaborative planning process team meetings. During this time, according to Principal F, “We can kind of catch the entire department up on what the individual grade level teams have been discussing.”

Principal G was the only principal who expects his teachers to meet twice per week to participate in the collaborative planning process. One meeting each week includes teachers in the same grade level who teach the same subject area. The second meeting is held for an entire subject area department.

Theme 6: Principals Were Open to Teacher Feedback as Part of the Collaborative Planning Process

The final theme, openness to feedback, entailed principals making themselves available and open to teacher input about the process. Several codes encompassed this theme (see Table 6). One question directly asked how principals account for teacher opinions as they related to the collaborative planning process.

Table 6

Theme 6: Principals Were Open to Teacher Feedback as Part of the Collaborative Planning Process

Codes	Respondents	% of participants' response
Openness	6	75%
Availability	3	37.5%
Teacher Feedback	3	37.5%
Trust	3	37.5%

Principal E saw openness to teacher ideas as key to teacher buy-in. He shared, “I think we’re always open to feedback from teachers on how to improve the process, how to make the process more meaningful to them.” He went on to say, “It seemed like we

started this process, and we did the process just to check the box. We have teachers collaborating [now], and we kind of moved on from that.”

Principal C recognized that it takes diligence to be continuously open to the ideas of teachers: “That’s a constant process. I mean just being open to it. Helping them to recognize that I’m always available for them to express that opinion. That I’m approachable.”

Being open to feedback means that principals need to listen to feedback that is not always constructive. Principal H shared, “We do a lot of conversations with them. We listen. We take the gripes. We got the naysayers. Those are the ones when we try to sell the process to...I always start with the naysayers.” Principal H explained that he tries to prevent such feedback from becoming too negative.

Principal F explained that openness is a foundational condition of teacher empowerment. Principal F said, “I think that has been the biggest thing for me...is to empower the members of that team, and to make sure that we are able to have open conversations about what is working and what’s not working, again to ensure our students continue to grow.” Implicit in Principal F’s response is the importance of trust among all members of the team in examining data.

According to this study’s participants, the collaborative planning process is supported by earmarking time, generally weekly, for teams of teachers to meet and engage in process. Principals also believe they are open to feedback and input from teachers that relates to the planning process. This assertion would be hard to validate without soliciting teacher perspectives, too. According to Donohoo et al. (2020), taking

teacher input seriously is essential for the collaborative planning process to aid in cultivating CTE and not, in the words of Principal E, be a “check the box” activity.

Themes and the Conceptual Framework

Donohoo et al.’s (2020) enabling conditions of CTE provided the conceptual framework for my study. One of the five conditions, goal consensus, was not addressed in my study because it does not pertain in any way to the collaborative planning process. Goal consensus focuses on overall school improvement goals (Donohoo et al., 2020). The results of my study will now be discussed in the context of the framework’s other four conditions: teacher empowerment, embedded reflective processes, cohesive teacher knowledge, and supportive leadership. The enabling conditions of CTE have been verified by Donohoo et al.’s (2020) research. The existence of these malleable conditions create an environment that is more conducive to the cultivation of CTE (Donohoo et al., 2020). Six themes were identified in this study: 1. Principal deference in trusting teacher professional knowledge and ability. 2. Middle School principals empowered teachers in formal and informal leadership positions to guide the collaborative planning process. 3. Principals acknowledged teacher accomplishments in the collaborative planning process. 4. Principals saw the collaborative planning process as job-embedded professional learning for teachers. 5. Principals use of different schedules contributed to the collaborative planning process success. 6. Principals were open to teacher feedback as part of the collaborative planning process. Examining the themes within the context of the enabling conditions increases understanding of how principals are addressing the

conditions in their schools, which helps to identify strengths and areas for growth in their leadership of the process.

According to Donohoo et al. (2020), the condition of empowered teachers entails genuine teacher leadership and influence in a school. Empowered teachers are able to contribute meaningfully to decisions regarding school improvement. Several questions were posed to participants to ascertain how participants empowered teachers through the collaborative planning process. Principals were queried about how they provide authentic leadership opportunities, how they entrust teachers to make important decisions, and how they recognize the accomplishments of individuals and groups through the collaborative planning process.

Donohoo's (2017) seminal work on the enabling conditions of CTE espoused a continuum of teacher involvement in school decision making to aid researchers and school leaders in operationalizing teacher empowerment. The degrees of participation by teachers range from teachers being informed and assigned actions related to school improvement to teachers initiating actions and sharing decision making with the principal. Participants' responses related to teacher empowerment indicate a commitment by all of the principals to some level of empowerment. While the responses reflected the full range of participation described by Donohoo, the preponderance of principals described significant teacher empowerment within the collaborative planning process.

Teacher Empowerment. The theme of deference was important for understanding how principals addressed the condition of teacher empowerment. Three of the principals—C, F, and G—were very deferential to the teachers in the collaborative

planning process. Complete trust and independence in the teachers to implement the process were common ideas espoused by these principals. The local problem that poor implementation of the collaborative planning process has resulted in insufficient levels of CTE begs the question of whether or not these principals should be that deferential to teachers in implementing the process.

Every principal spoke of trusting their teachers, but some of the principals shared that this trust occurs within the context of some accountability. Principal D explained that the student achievement results served as a check on the teachers' actions in the collaborative planning process. Principal E said the level of trust was commensurate with a teacher's level of experience. Of course, this could be problematic because years of experience does not always equate to greater effectiveness. Principal B indicated that documentation tools for the collaborative planning process provided some accountability of teachers.

While all of the participants emphasized the empowerment of teachers, ascertaining when, how, and to what extent is where principals take knowledge about effective leadership and apply it to the real world. If district leaders have argued that the collaborative planning process has not been properly implemented, then they should consider helping principals to adopt a more nuanced understanding of teacher empowerment.

Embedded Reflective Processes. Embedded reflective practices represent the actions teams take to inform their instructional work through the examination of student learning evidence (Donohoo et al., 2020). Interview questions related to embedded

reflective practices asked participants how they get teachers to use evidence of learning to inform their teaching and promote the use multiple sources of assessment data over time. Important skills required to engage in reflective practices include the design of a variety of assessment types, analysis and interpretation of assessment results, and understanding of how to tailor instruction to address needs that emerge from assessment data.

Job-embedded professional learning was a theme essential understanding how principals addressed the condition of embedded reflective processes. Study participants spoke about how teachers use formative assessments and other ways to obtain feedback from students on their learning progress. Analysis and interpretation of formative data served as an impetus to teacher reflection and actions to improve their praxis for students.

According to Goddard et al. (2000), mastery experiences are the most powerful source of CTE, so having teachers use formative assessment data to reinforce success is an evidenced-based approach for cultivating CTE. If teachers have success using a certain strategy, according to Goddard et al., then they develop a greater sense of collective efficacy. Review of formative assessment data also contributes another CTE source, vicarious experiences, when teachers share their success with others on a collaborative planning process team.

While every principal spoke in some way about teachers using assessment data to guide their growth, two principals pointed out the issue of data literacy. Principals G and H asserted that their teachers did not have the capacity to gain insights from the data and respond appropriately. Interestingly, Principal G was one of the three most deferential

principals to teacher knowledge and ability, according to their comments. Should significant deference be given to teachers if they do not have the capacity to maximize the use of embedded reflective practices.

Some principals tried to bolster teacher effectiveness with embedded reflective processes through the leadership of formal teacher leaders, an element of another theme in my research. Every principal pointed out the work of department chairs and teacher specialists, which are formal teacher leaders. Principal H had their math specialist provide strong direction to the math teams. Principal B had department chairs and specialists providing some leadership while also allowing input from teachers. Principal C explained that the teachers are leading themselves. Finding the correct balance in the level of leadership given to teams employing embedded reflective processes appears to be another important finding.

Cohesive Teacher Knowledge. The concept of cohesive teacher knowledge indicates the extent to which teachers concur about what constitutes effective instruction and teachers' knowledge about the pedagogical practices of others in their school (Donohoo et al., 2020). MPS's collaborative planning process can aid the development of cohesive teacher knowledge because teachers are planning together, discussing how to deliver instruction, and reviewing common assessment results. Several open-ended questions were posed to participants in this study regarding cohesive teacher knowledge. The questions asked principals how they use the collaborative planning process to cultivate shared beliefs about effective pedagogical practices and approaches to assessment. Several themes from my study touched upon cohesive teacher knowledge:

formal and informal leadership, job-embedded professional learning, and schedules and success.

Every participant declared that teacher specialists and department chairs, formal teacher leaders, were essential for building cohesive teacher knowledge. Principal F admitted that teachers were more likely to adhere to the advice of teacher leaders than the principal. However, several principals wanted to mitigate the influence of these leaders in the collaborative planning process by making them just another participant. Principal A thought that too much control from a leader limited productive conflict among team members. Again, if MPS's leaders found that the collaborative planning process was not being implemented properly, certain questions need to be asked: Do teacher leaders know how to vary their level of leadership according to the needs of the team to promote cohesive teacher knowledge? Do teacher leaders have the needed cohesive teacher knowledge? Do principals, as the schools' instructional leaders, have sufficient knowledge about effective instruction and assessment techniques and practices?

The theme of job-embedded professional learning, especially through the use of formative assessment practices and feedback, was also relevant to cohesive teacher knowledge. Principal E saw a cycle of formative assessment as a form of action research. One challenge to building cohesive teacher knowledge primarily through formative assessment data was that the lesson activities and assessment may not be aligned to curriculum standards. Only one participant, Principal C, expressed the importance of aligning instruction and assessment practices with curriculum standards. Without alignment of standards, instruction, and assessment, the data can be misleading. If MPS's

district leaders take seriously the data on empowering teachers, which indicates high degrees of trust and deference to the ability of teachers by participating middle school principals, then it is incumbent upon them to ensuring that teachers have the training and resources needed to act in a system without too much oversight.

MPS middle school principals, as participants in this study, believed that teachers developed common understanding about effective instructional and assessment practices, key features of cohesive teacher knowledge, by administering common formative assessments and analyzing and interpreting the results. If district leaders expressed the problem that ineffective implementation of the collaborative planning process was not yielding high enough levels of CTE and corresponding levels of student achievement, then using formative assessment as the primary driver of building cohesive teacher knowledge may not be sufficient. Without fully understanding and aligning instruction and formative assessments to curriculum standards, formative assessment data may indicate inaccurate levels of standard mastery by students. Some principals used the observation process to add a measure of accountability, but formal observations are conducted infrequently—no more than two times per year for tenured teachers in an evaluation year.

Schedules and success was the final theme pertaining to cohesive teacher knowledge. Participants saw their planning of the master schedule, including how teachers were teamed, as essential to building cohesive teacher knowledge. Principal C said who teachers are teamed with is paramount to building the capacity of their staff. Principal D attempted to build teacher capacity in instruction and assessment by

scheduling a common planning period for all departments. Principal F even budgeted money to pay teachers for departments to meet after school and engage in the collaborative planning process.

Supportive Leadership. Donohoo et al. (2020) operationalized supportive leadership as engaging in the following practices: demonstrating concern for teachers, protecting teachers from distractions, considering the opinion of teachers, and recognizing the good work that teachers do. Donohoo et al. (2020), the developers of the Enabling Conditions of CTE Scale, made clear that supportive leadership surrounds the other four conditions. Supportive leadership makes the other conditions possible. Three themes touched upon supportive leadership: acknowledgement of teacher accomplishments, schedules and success, and openness to feedback.

Participants mentioned several different ways in which they acknowledged the accomplishments of their teachers as part of the collaborative planning process. Four principals specified that celebration was important, including one principal, B, who embedded it planning meetings. Principal F suggested that success now is the foundation for future success. Most of the principals saw their professional conversations with teachers about their instruction, whether occurring after an observation or during the planning meetings, as a way of acknowledging success and supporting their work. Half of the principals explained how they highlighted the work of individuals and teams through faculty newsletters and meetings.

Every principal in this study recognized the importance of schedules in supporting the work of collaborative planning teams. Every middle school principal built time in the

schedule for teams to meet. Principal E emphasized that the time is sacrosanct, so no other teacher responsibilities interfere with the work. In this way, Principal E explained that the work of the collaborative planning process teams becomes encultured in the school. Principal G valued the process so much that teachers were required to meet twice per week in their school.

Finally, the middle school principals demonstrated supportive leadership to the process by being open to feedback and input about it. Principal H volunteered that being open to feedback means sometimes listening to feedback that is not productive before redirecting teams towards solving problems. Principal E saw being open to feedback as a way to move teachers from compliance in adhering to the collaborative planning process to genuine commitment and respect for it.

Summary of Data Analysis

My study was designed to address a local problem: MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. According to the district's 2019 ESSA Consolidated Strategic Plan, weak implementation of the district's collaborative planning process inhibited growth of CTE, and insufficient CTE was a root cause for unsatisfactory student achievement results on state testing. To address the local problem, my research study answered this question: How do MPS's middle school principals attempt to cultivate CTE among their faculty through the district's collaborative planning process? MPS's principals were charged with implementing the process in their schools, so understanding their leadership of the

collaborative planning process helps the district to understand how they can ameliorate implementation of it.

Six themes were identified in this study: 1. Principal deference in trusting teacher professional knowledge and ability. 2. Middle School principals empowered teachers in formal and informal leadership positions to guide the collaborative planning process. 3. Principals acknowledged teacher accomplishments in the collaborative planning process. 4. Principals saw the collaborative planning process as job-embedded professional learning for teachers. 5. Principals use of different schedules contributed to the collaborative planning process success. 6. Principals were open to teacher feedback as part of the collaborative planning process. The findings for this basic qualitative study were reviewed within the context of four of the five enabling conditions of CTE identified by Donohoo et al. (2020): teacher empowerment, embedded reflective processes, cohesive teacher knowledge, and supportive leadership. Goal consensus, one of the conditions, is not germane to the collaborative planning process because it represents school-wide improvement planning (Donohoo et al., 2020). The enabling conditions were verified by Donohoo et al. (2020) as being conducive to the growth of CTE. Considering the themes from my research study within the context of the enabling conditions helps to understand how the principals are using MPS's collaborative planning process to cultivate CTE. This may help district leaders understand strengths and areas that need improvement in leadership of the collaborative planning process. Within the discussion of each condition, themes were identified when the data supported their existence. The findings of this study help to answer the research question: How do

middle school principals in a suburban mid-Maryland public school district perceive their attempt to cultivate CTE among their faculty through the district's collaborative planning process?

Middle school principals, as participants of this study, cultivated CTE through the collaborative planning process by addressing the enabling conditions of CTE (Donohoo et al., 2020). An explanation of my study's themes considered within the context of the enabling conditions of CTE pointed to the need to deepen the understanding of the MPS principal participants in how to lead the collaborative planning process best in their schools.

Teacher empowerment was primarily addressed through the theme of deference to teachers' knowledge and abilities. Principals demonstrated different levels of deference to teachers. Some were very deferential and entrusted teachers with implementation of the process and the decisions made during collaborative planning meetings with little to no oversight. Other principals used accountability measures to ensure their trust was well placed. MPS's middle school principals could benefit from a more nuanced understanding of when, how, to what extent to empower teachers by being deferential.

Embedded reflective processes, another condition, was addressed through the theme of job-embedded professional learning and informal and formal leadership. The theme of job-embedded professional learning related to how principals used the process to increase the effectiveness of their staff. Unfortunately, as two principals pointed out, not all teachers have the data literacy skills to interpret the data, and not all teachers are skilled at aligning the resources to the expectations of the standards. Helping principals to

see this in their teams may improve implementation of the collaborative planning process. Principals could also use help with the theme of informal and formal leadership. Some teams had strong leadership that provided strict direction to teachers. Other times had leaders that could best be described as listeners. Gaining an understanding of how to use leaders better in the process could also improve overall implementation.

Several themes were found to be related to the condition of cohesive teacher knowledge: formal and informal leadership, job-embedded professional learning, and schedules and success. Formal and informal leadership indicated how and to what extent principals used teacher leaders to increase cohesive teacher knowledge. As with the other themes, there was a lack of consistency, that if addressed, may improve implementation of the collaborative planning process. Growing cohesive teacher knowledge through job-embedded professional learning, another theme, can be effective when there is alignment of standards, instruction, and assessment practices, according to Principal C. Since some principals are very deferential to teachers, there may not be accountability measures in place to verify this alignment, a critical element to ensure teachers are growing in their collective knowledge. Principals could use guidance on best practices to promote the growth of cohesive teacher knowledge through job-embedded professional learning. Finally, schedules and success as a theme was a way for principals to address cohesive teacher knowledge. All principals recognized that schedules were essential to the effectiveness of the collaborative planning process, but they had different ideas about how to use master schedule to facilitate cohesive teacher knowledge.

Middle school principals addressed the condition of supportive leadership through several themes: acknowledgement of teacher accomplishments, schedules and success, and openness to feedback. Acknowledgement of teacher accomplishments was seen as a vital practice by all principals, but they differed in how they accomplished it. Because collective efficacy is built when successes can be interpreted as being a result of specific actions of the teachers, it is important to help principals develop practices that can do this strategically, coherently, and consistently. Principals demonstrated supportive leadership by being open to feedback about the process. Helping principals understanding the non-negotiables of the process and where they can be flexible would serve their leadership well.

Every MPS principal spoke of their own participation in the collaborative planning process to some degree. If principals have a working knowledge of the district's collaborative planning process and require teacher participation, then why did district leaders find that the process is not being implemented properly and producing higher levels of CTE? One likely answer, there was nuance to how the enabling conditions should be addressed in the real world of schools. Helping middle school principals develop a more nuanced understanding of the leadership needed to address the enabling conditions of CTE (Donohoo et al., 2020) may help to improve the cultivation of CTE through the collaborative planning process.

This basic qualitative research study was conducted in response to a local problem: MPS district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. An appropriate project to aid the district in

addressing this problem is a position paper. A position paper can provide background on CTE, an overview of the study, an explanation of important findings, and policy recommendations for how to improve leadership of the collaborative planning process. It was evident that MPS principals have knowledge of how the process should operate, but principals could benefit from a coaching intervention to help them to acquire a more nuanced understanding of the process.

Section 3: The Project

Introduction

The project selected to address the findings of this study is a position paper aimed at supporting district leaders in their attempt to improve implementation of the collaborative planning process as a strategy for cultivating CTE. In the position paper, I provided some background on CTE, elements of my research study, including findings, and recommendations for district leaders on how to facilitate more effective implementation of the teams through principal leadership. The primary recommendation is for the MPS district to adopt a coaching model to bolster the ability of principals to lead the collaborative planning process implementation more effectively in their schools. The policy paper will be presented to district leaders. In this section, there is a deeper discussion of the rationale of the project, a review of the literature on coaching, a deeper description of the project, and an explanation of how the project will be evaluated.

Rationale

A position paper was designed to provide analysis of an important policy issue for a general audience. It includes recommendations for how to effect positive change in the policy issue area. This study was inspired by a problem in a local school district: MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. A position paper can help district leaders better comprehend the problem in a deeper, more nuanced manner. The paper may help the leaders understand the problem within the context of rigorous research on CTE, including the study I have just conducted. Finally, research-informed recommendations for how the

district can address the local problem can be provided in a position paper. This is vitally important because district leaders had asserted in the 2019 ESSA Consolidated Strategic Plan that the lack of CTE, due to the ineffective implementation of the collaborative planning process, was a contributor to lagging student achievement.

Review of the Literature

The purpose of this basic qualitative study was to explore how MPS's middle school principals cultivate CTE in their schools through the district's collaborative planning process. Analysis of the data in this study revealed that middle school principals in MPS have a working understanding of how to use the district's collaborative planning process to cultivate CTE in teachers but could benefit from a more nuanced understanding of how to address the enabling conditions of CTE (Donohoo et al., 2020). The results of the study indicated a need to deepen the understanding of the MPS district's middle school principals in leading the collaborative planning process. I have prepared a position paper for district leaders in which I discussed my results and made recommendations for how to bolster principal capacity in leading the process through job-embedded principal coaching.

Appropriateness of Project Selection

The type of project selected for this study is a position paper. The problem that was addressed through this study is that MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. A policy paper was appropriate because it provides district leaders in MPS background on the local problem and CTE, presents evidence from the literature and research, and identifies

recommendations for improving the quality of leadership of principals in leading the collaborative planning process.

Researching Articles Related to the Project

The Walden University Library was used to conduct a review of the literature. Through the library, several databases were located: EBSCO, ERIC, MEDLINE, Directory of Open Access Journals, Education Source, Science Direct, Scholar Works, Emerald Insight, Health and Psychosocial Instruments, Supplemental Index, and Business Source Complete databases. The following keywords were used to search the literature: *leadership coaching* and *educational leadership* or *educational administration*. The combined terms yielded 468 citations, 72 from within the past 5 years. A closer examination of the 72 articles resulted in the identification of 17 relevant peer-reviewed journal articles written in English. An additional eight germane peer-reviewed journal articles were discovered by combing through the reference lists of the 17 obtained from use of the search terms.

During the review, no research studies were identified that focused on coaching as a strategy for improving leadership of a collaborative planning process or for aiding leaders in cultivating CTE. However certain themes emerged from the review, including the rationale for coaching principals, the importance of defining coaching, the different varieties of coaching for principals, and the conditions that helped to foster successful coaching experiences.

Principal Coaching

Rationale for Coaching

The influence of an effective principal is greater than previously realized (Grissom et al., 2021). Grissom et al. (2021) illustrated the impact by arguing that the replacement of a below average elementary school principal with an above average one resulted in 2.9 extra months of math learning and 2.7 months of reading learning for a student each year. Chenoweth (2021) cited effective principal leadership as the key to several factors found in Chicago Public Schools that demonstrated significant growth in student achievement. Unfortunately, principal preparation programs are often disparaged for being too theoretical and ineffective (Lewis & Jones, 2019). Principal candidates do not learn how to take theoretical concepts and apply them to the practice of being a principal. Therefore, principals, like teachers, benefit from ongoing, systematic, job-embedded professional learning (Thessin & Louis, 2019). Not only do individual principals benefit from professional development activities, but there are also districts that systematize it for the benefit of the entire organization. A study in Canada discovered that embedding professional development for leaders in a systematic fashion was a common characteristic of high-performing school districts (Leithwood & Azah, 2017).

Coaching is one strategy that embeds professional development for leaders into their work context. According to a national survey of principals, approximately half of the respondents were receiving, or had recently received, some form of coaching (Wise & Cavazos, 2017). Many states have adopted plans for improving principal leadership through coaching (Riley & Meredith, 2017). Wise and Cavazos (2017) said that

principals found coaching to be supportive and beneficial. Coaching leaders can be seen as an important school improvement strategy due to the important role the principal plays in the effectiveness of a school (Huggins et al, 2021). Quality coaching has been correlated with greater support and better implementation of new district initiatives (Bush-Mecenas et al., 2020). The use of coaching has been effective at improving student achievement (Filippi & Hackmann, 2019). The theory of action for this belief is that improved school leadership indirectly leads to greater student achievement. Coaching facilitates reflection and greater self-awareness (Houchens et al., 2017). Greater self-awareness is important because leaders need help shaping their beliefs (Robinson et al., 2020). Participants in coaching have also experienced increased career engagement and greater positivity and optimism (Archer & Yates, 2017). Coaching allows districts to individualize the support given based on the needs and goals of principals (Anthony, 2017).

Coaching of principals has been correlated with better implementation of district initiatives (Bush-Mecenas et al., 2020), so it is promising strategy for improving principal leadership of MPS's collaborative planning process. The results from this study revealed that principals are in different places in their understanding of how to lead the planning process. Coaching can be individualized (Anthony, 2017), allowing the district to best meet the needs of its school-based leaders with regards to providing supportive leadership to the planning process. MPS could tailor a coaching intervention to meet the individual needs of middle school principals.

Coaching Definition

A discussion of coaching must begin with a clear definition of the term. In general, coaching is a job-embedded form of professional development (Ray, 2017). The process of coaching has direct relevance to the work of the leader because it occurs within the context of their job (Flückiger et al., 2017). Leadership-focused coaching builds upon strengths and proposes ideas for improvement within the context of leadership theory and concrete decision-making models (Gray, 2018). If leaders understand why they are engaging in certain practices in given situations, they can apply the theoretical framework to similar situations that they may encounter in the future. Reflection and new ways of acting to facilitate change are the results of effective coaching (Lackritz et al., 2019).

Coaching entails a more experienced professional aiding another professional in attaining specific job-related goals (Hayes & Burkett, 2020; Klar et al., 2020). The work of coaches is future oriented and addresses needs and interests of the participants (O'Neill & Glasson, 2019). Coaching focuses on the needs of the principals (van Nieuwerburgh et al., 2020). It differs from mentoring, which consists of general support that lacks specificity of goals and occurs for longer periods of time (Klar et al., 2020). Mentoring is open-ended, whereas coaching consists of a structured process in order to support goal attainment (Flückiger et al., 2017; Hayes & Burkett, 2020). To effect long-term change in principal praxis, coaching must be facilitative, rather than directive, so principals can develop a process to learn and act independently (van Nieuwerburgh et al.,

2020). Such a facilitative process that van Nieuwerburgh et al. (2020) recommended must include time for reflection.

As a job-embedded form of professional learning, coaching can meet the needs of MPS's middle school principals as they lead the collaborative planning process teams in their schools. A coach can attend meetings with the principal and facilitate reflection within the context of the enabling conditions or CTE. A coach can give principals feedback on their leadership and help model essential skills as needed.

Varieties of Coaching

Coaching has been found to be effective with both a face-to-face structure as well as non-face-to-face communication, including telephone calls, emails, and text messages (Cosner et al., 2018). In one study, 32 of 36 participants found virtual coaching to be moderately to extremely effective (Lewis & Jones, 2019). In another study, Jones and Ringler (2018) did not find a significant difference in coaching between in-person and virtual sessions. This is promising, since virtual sessions remove the barrier of travel for a meeting between coach and coachee, and a coach can more easily meet with multiple coachees in a given day. Individual coaching contributes to greater transfer of knowledge to leadership practices than modeling alone (Kappler-Hewitt et al, 2020). In some districts, the role of principal supervisor is being adapted to include coaching support for principals (Thessin & Louis, 2019). Kappler et al. (2020) explained that not every coaching researcher agrees that this is a good idea because supervisors evaluate principals' work performance, perhaps making it less likely that they will display candor in discussing their leadership weaknesses.

Not all coaching must occur between one coach and one coachee. Group coaching has been found to contribute to a sense of professional community (Houchens et al, 2017). However, in group coaching, there are more variables that must be managed to foster a successful experience for those being coached. For example, Houchens et al. (2017) found that colleagues who were a part of a grouping coaching experience sometimes curbed their willingness to challenge the assumptions of one another. The concern raised by Houchens et al., however, is only an issue if the model sees principals as aids in the coaching process. Nonetheless, there still may be less of willingness for principals to be vulnerable in a group process if they have to share weaknesses or challenges in front of peers. Group coaching is useful when a district has a limited number of trained coaches able to provide this time-intensive support.

I recommend that MPS adopt a hybrid model comprised of group coaching sessions during monthly, all-day principal meetings augmented by individual visits with each of the middle school principals. Principals would also be able to access the coach via other methods, such as phone calls, email, or virtual meetings using Google Meet.

Conditions That Foster Coaching

Certain conditions were found to be critical for a successful coaching experience. One condition is the amount of time that coaches spent with the people they coached. One research team discovered a correlation between satisfaction in the coaching process by participants and the time the coach and coachee spent together (Wise & Cavazos, 2017). Ray (2017) recommended that districts should devote more time to coaching of

principals. Minimal or an optimal amount of time that should be dedicated to coaching principals was not mentioned in the research.

Another key element in a successful coaching experience is trust (Eastman, 2019; Ray, 2017). In a trusting environment, principals can be more candid and vulnerable about their challenges and weaknesses with their coaches. Van Nieuwerburgh et al. (2020) identified a closely related theme to trust: feeling safe to explore. Principals have to believe that their openness will not be held against them in an evaluation. This means that a lack of trust can mitigate the potential growth of a principal in a coaching experience.

Modeling new practices by a coach has been seen as an effective practice by some principals (Lackritz et al., 2019). Principals acknowledged it is helpful to see new skills demonstrated, or modeled, rather than just being explained in a conversation (Lackritz et al., 2019). Modeling also afforded coaches the opportunities to share tools and protocols from their own experience as principals with their coachees (Lochmiller, 2018).

The credibility of the coach is important for a successful coaching experience (O'Neill & Glasson, 2019). Lackritz et al. (2019) reported that principals in their study believed their experience was positively influenced by the perceived competencies of the coach (Lackritz et al., 2019). Some coachees saw their coaches as both content experts and moral supporters (Lackritz et al., 2019).

Patrick et al. (2021) explored coaching behaviors that are either activating or limiting. The questions posted by coaches in Patrick et al.'s study were labeled as activating or limiting. Limiting questions were inquiries about facts and ideas without

reasons. They found that approximately half of coaches' questions could be classified as limiting. These questions were deemed limiting because they did not challenge the beliefs and assumptions of principals. Challenging principals' beliefs and assumptions is essential, according to the researchers, to facilitate learning and problem-solving. Lines of questioning that provoke such self-reflection are activating. Patrick et al. concluded that coaches may need more support to engage in activating inquiries.

One research study argued for the need to enhance the rigor in the study and practice of coaching by connecting it to relevant theories of learning (Hurlow, 2022). Failure to tie coaching to explicit theories of learning, Hurlow (2022) asserted, may result in capricious cherry-picking of coaching tools and techniques. The four theories explored by Hurlow are behaviorism, cognitive constructivism, social constructivism, and social constructionism. Hurlow encouraged researchers and practitioners to identify their own theoretical lens and to be aware of the possibilities evident in all learning theories.

If MPS decides to adopt a coaching model for their principals, they should ensure ample time is dedicated to this work since coaching time has been correlated to perceptions of efficacy by principals (Ray, 2017). The district should also ensure the coach is perceived as being competent by developing robust training for the coach, which includes the ethics of coaching to develop trusting relationships and questioning methods to elicit reflection and connection to theory. Ideally, MPS should select a principal proven to be effective at leading the teams.

Project Description

A position paper has been written for MPS's district-level leaders in which I describe the local problem within the context of extant research and my own study. I also make recommendations for how to improve middle school principal leadership of the collaborative planning process. The theory of action for this project begins with the belief that MPS's collaborative planning process has embedded in it several of the conditions known to enable CTE (Donohoo et al., 2020). By bolstering CTE, school leaders will be addressing the number one impact on student achievement (Hattie, 2017). In other words, greater CTE fostered through the collaborative planning process should result in greater student learning. The central recommendation of the position paper was that MPS district leaders should provide coaching to the middle school principals to ameliorate their leadership of the collaborative planning process.

The most important resource needed to implement this project is a trained coach. MPS currently has a supervisor in the School Accountability and System Improvement Department that oversees implementation of the collaborative planning process. This person would provide support to schools by visiting teams implementing the planning process and given them feedback to move the process forward. However, the support was not given across the district in a systematic way. The supervisor visits teams that invite this individual would focus more on individual teams, rather than school principals, and school principals were not required to participate during these team visits.

I recommend that MPS hire and train a current principal or a teacher specialist dedicated to coaching principals in leading the collaborative planning process. This coach

would then train principals in the coaching model and begin to coach them in how to use the collaborative planning process to cultivate CTE. An important finding of my study is that MPS's middle school principals may benefit from a more complex understanding of the deference they pay to the knowledge and ability of teachers to instruct and assess their students. This would require selection of a coach who is knowledgeable about curriculum standards, delivery of instruction, and assessment. The coach would need to help the middle school principals better evaluate whether or not teacher knowledge and skills are properly aligned to curriculum standards.

Several resources are needed to implement a coaching program for the MPS district's principals, and each resource needed is also a potential barrier. The first resource needed is a budget to hire a coach. Since the credibility of the coach is an important consideration according to O'Neill and Glasson (2019), the coach should have some, or all, of the following characteristics: demonstrated leadership experience and proven knowledge about curriculum standards, pedagogy, and assessment. This means that a supervisor or principal-level salary would need to be added to the district budget.

Another resource that would be needed would be training for the newly hired coach. MPS's Department of Organizational Leadership and Development recently adopted a model of coaching for new principals. If this model does not meet the needs of coaching experienced principals in their implementation of the collaborative planning process, then a new model would have to be adopted. Regardless of the coaching model that is selected, the department would need to train the new coach. This should occur early July of the new school year.

After the coach has been trained, the coach will need to train MPS principals in the model. Time is the resource needed to implement the training, but principals often have time in their summer schedules to participate in training when students are not attending school. Training principals in the summer would prepare principals to apply their new understanding of the collaborative planning process at the start of the upcoming school year. Training principals over the summer does not require additional money, except perhaps for any possible resources that are not electronic.

Coaching is often considered effective because it focuses on the needs of the principals being coached (van Nieuwerburgh et al., 2020). It is possible that some MPS principals may not perceive this as a need, believing that they are already effective leaders of the process. This barrier can be addressed by sharing current student achievement data and the findings of my research study. It can also be addressed by the principals' supervisor setting a clear expectation for a commitment to coaching as a strategy for improving use of the collaborative planning process.

As someone who has studied CTE and the collaborative planning process in MPS, I could serve as an adviser to the district leaders and the coach as they prepare the coaching program. After a coach has been hired and trained, I could help the coach develop an understanding of the enabling conditions of CTE and how the district's collaborative planning process creates the conditions when implemented properly.

Project Evaluation Plan

Evaluation of the project plan will entail a quantitative and qualitative approach. At the beginning of the school year, MPS middle school teachers will take the Enabling

Conditions of CTE Scale (Donohoo et al., 2020). Since the coaching program is designed to aid principals in creating and supporting the conditions correlated with CTE, it is important to establish a baseline for these conditions in schools before the coaching begins. At the end of the school year, the survey will again be administered to teachers to determine if growth has occurred. The enabling conditions of CTE scale (Donohoo et al., 2020) was developed and validated through testing of these conditions; therefore, use of pre- and post-project surveys provides quantitative evidence of the consequences of the program.

The quantitative data will indicate whether or not there is evidence that the enabling conditions have been developed more fully, but a qualitative method of evaluation will help district leaders understand how principal thinking may have changed from before the project until one year later. This will entail interviewing principals using the same questions posed in my research study.

The goal of the project is to increase the ability of MPS middle school principals to enable the conditions for CTE through the collaborative planning process. Using survey evidence will provide quantifiable data as to whether or not the project was a success. Making use of the qualitative data from interviews may provide district leaders with insight into how to ameliorate support of principals if they decide to continue the program for another year. The interviews may also help principals better understand their own thinking, so they can take ownership of their own learning in this area.

Project Implications

CTE is the number one influence on student achievement (Hattie, 2017). Therefore, developing a project that aims to help principals to enable this concept is valuable. Principals have an indirect impact on student achievement through their leadership (Chenoweth, 2021). One way that principals can impact student achievement is by providing leadership that cultivates CTE (Donohoo, 2017). Leading teachers to implement a collaborative planning process is an effective structure for embedding the conditions that foster CTE (Donohoo et al, 2020).

Coaching is an effective, job-embedded way in which to build the leadership skills of principals (Flückiger et al., 2017; Lackritz et al., 2019). By coaching MPS middle school principals in how to use the district's collaborative learning process more effectively, they may cultivate greater CTE in their teachers, with the most important consequence being greater student achievement for MPS middle school students. Success at the middle school level could inspire exploration of the use of coaching to bolster principal leadership of the collaborative planning process at other school levels of the district beyond the middle, possibly resulting in greater achievement across the district.

Section 4: Reflections and Conclusions

Project Strengths and Limitations

The local problem addressed through this study is that MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process. MPS's leaders created a collaborative planning process to aid in the cultivation of CTE as a strategy for increasing student achievement. According to the district's 2019 ESSA Consolidated Strategic Plan, the district was unsuccessful in cultivating CTE by leveraging the collaborative planning process to increase student achievement because of ineffective implementation. As the leaders of the schools, principals were charged with overseeing the implementation of the process in each location. The purpose of this basic qualitative study was to explore how MPS's middle school principals cultivate CTE in their schools through the district's collaborative planning process. The following question guided the research: How do middle school principals in a suburban mid-Maryland public school district perceive their attempt to cultivate CTE among their faculty through the district's collaborative planning process? After completing my research, I adopted a position paper as the most appropriate culminating project for my study.

There are several strengths to my position paper. First, a position paper is in itself a strength as a project. In the paper, I make specific policy recommendations for MPS district leaders to consider implementing in response to the research findings. Although I have considerable knowledge about CTE, leadership coaching, and how principals describe their leadership of the district's collaborative planning process, I do not need to be involved to carry out any of the policy recommendations. This may mitigate any

concerns that the paper has been drafted to benefit my professional standing in the district.

Another strength of the position paper is that I made a policy recommendation that is both cost effective and grounded in research: coaching principals in their leadership of the district's collaborative planning process. In the paper, I used research to define coaching, identify positive consequences of it, and discuss conditions that facilitate its efficacy. To gain the full benefits of coaching, a professional who can dedicate significant time to this important task should be procured. This may mean hiring someone completely new, which has a budgetary cost, or redefining an existing professional's responsibilities to free up time for the task. However, if the district does not have the time or budget for a position, a less effective option for the system still exists in having someone, such as the principal supervisor, take on this role along with their other responsibilities.

A final strength in the position paper is that I shed light on an important issue related to the continued study of CTE and the conditions that enable it: the need to understand how the work of real principals try to address the enabling conditions in a school. Donohoo et al. (2020) explained that each of the five enabling conditions is related to one another, but there was no discussion of what that looks like in practice. I highlighted the importance having balance among empowered teachers, cohesive teacher knowledge, and embedded reflective practices. This nuanced understanding may help the district's policymakers adopt changes to improve leadership of the process and even the process itself.

Although there are several strengths in my project, the size of the study is a possible limitation. There are 13 middle schools in MPS, but only eight middle school principals participated in the study. This may mean that the findings are not truly representative of middle school principals. I mitigated this limitation through the use of member checks and examining the findings within the context of the literature regarding CTE.

Recommendations for Alternative Approaches

There are alternatives that could have been adopted to study the local problem. First, a mixed-methods study could have been employed, in which quantitative data could have been obtained on teacher levels of CTE in the middle schools. This would have allowed me to compare participants' responses from schools with higher and lower levels of CTE. Second, if I chose to still use a basic qualitative approach, I could also have included observations of collaborative planning process teams. Observation data could have helped to triangulate the data from principals' responses. Third, I could have used a case study approach and examined one principal over the course of a year to gain a more nuanced understanding of their leadership. Time and the ability to obtain the necessary permissions to study the problem ruled out these alternatives as viable options. The basic qualitative approach with semi-structured interviews was a satisfactory way to begin exploring the local problem.

There is one important alternative to the local problem established by the district in the 2019 ESSA Consolidated Strategic Plan: CTE is not the primary concern. While the influences on student learning are varied, a simple answer to the problem is that

teachers lack the capacity to get better student achievement results for their given students. While belief about efficacy is important due to its influence on student achievement (Goddard et al., 2021; Qadach et al., 2020), teachers need to have the ability to be successful before they can believe they can educate all students. A possible solution to this problem is to implement robust professional learning to build teacher capacity to deliver standards-based instruction and assessment.

Scholarship, Project Development, and Leadership and Change

As an intervention to aid growth in leaders, there is substantial scholarship on the use of coaching. Many principals have received and will continue to receive coaching support because their certification programs fail to prepare them for all of the roles and responsibilities in the job (Lewis & Jones, 2019). Clearly defining coaching, in juxtaposition with mentoring, is essential when planning to support the professional development of principals. Mentors provide a general level of support (Klar et al., 2020), whereas coaches help principals identify goals relevant to their immediate praxis and then aid their work in achieving them (Hayes & Burkett, 2020; Klar et al., 2020). Coaches are received best when they are perceived as being trustworthy (Eastman, 2019; Ray, 2017), competent (O'Neill & Glasson, 2019), and able dedicate sufficient time to the needs of their coachees (Wise & Cavazos, 2017).

MPS could significantly improve their implementation of their collaborative planning process through coaching. The district currently has a supervisor for the System Accountability and School Improvement Department who visits collaborative planning teams throughout the district, often at the invite of teams looking for knowledgeable

feedback. However, this approach is too capricious for it to be beneficial to teams implementing the process. An effective theory action to address the local problem begins with improving principal leadership of the planning teams. Coaching, rather than training for all, is a better option for the district to select. Principal responses to the interview questions revealed that principals have different levels of understanding of how to lead the process. Coaching can target the specific needs of these principals better than a professional learning plan.

Though research for my study and additional research on the culminating project, I have gained significant insight and knowledge that could help MPS improve the implementation of the collaborative planning process. I can advise district leaders on my research findings and set it within the context of the larger body of research into CTE and coaching.

Reflections on the Importance of the Work

Several years ago, I took over as principal a middle school in MPS that had the most diversity, the highest levels of poverty and English Learner students, and the lowest test scores on state assessments. When meeting with district leaders about my new school, I was informed that teachers needed to believe all students can learn. I countered that the teachers did not believe it because they did not know how to achieve it. In other words, the teachers did not know how to help all students to learn, and this was reflected in various classrooms where low expectations for learning were the norm.

My improvement plan began with the adoption of collaborative planning teams on which teachers used common formative assessment data to inform their praxis. It soon

became evident that the collaborative planning structure was not enough because teachers did not know how best to teach the curriculum standards, so I organized robust professional learning using experts from outside of the district in math and language arts. As teachers began to experience some success, share their experiences with one another, and apply the ideas of experts, they began to believe they did indeed have the ability to educate all students and develop CTE. Student achievement on state tests increased for several consecutive years after these changes were implemented. The ranking of the school even moved from 13, or last, to 6 among the MPS district's middle schools on the English Partnership for Assessment of Readiness for College and Careers assessment, and achievement gaps were decreased. The work I just described is work that is needed across the district, and perhaps even the United States as student achievement falters and significant achievement gaps based on race, ethnicity, and socio-economic status persist.

The research I have done provides a nuanced understanding of how principals perceive their leadership of the collaborative learning process in MPS. It is the only known rigorous review of CTE that has been conducted in MPS, and it should inform the improvement plan of district leaders. The research base on CTE, including the importance of principal leadership and collaborative planning structures in fostering it, is well established. That research base grounded me as I studied the local problem in MPS. District leaders can reinvest in the collaborative planning process by training principals to provide more effective leadership of collaborative planning teams. MPS's principals already have a basic understanding of how to lead the process in their schools. Now they need assistance to deepen their understanding of how the enabling conditions of CTE

need to be balanced. The importance of cohesive teacher knowledge, one of the conditions, is clear. My position paper gives district leaders research-informed knowledge of how to cultivate CTE through their collaborative planning process. Heeding the policy recommendations could produce a significant breakthrough in student learning across the district.

Coaching is an evidence-based intervention that can improve the quality of principal leadership of the collaborative learning process in their schools. There are so many variables to consider when planning an intervention to improve principal leadership, including the specific school contexts in which the principals work and their current knowledge and skill levels regarding leadership of the collaborative planning process. Planning professional learning modules for principals to complete does not address the variety of needs that MPS's middle school principals have with leading the process. Coaching can be tailored to individual needs and lead to improvement in all schools.

Implications, Applications, and Directions for Future Research

The impetus of my study was principal leadership and the cultivation of CTE. My research developed in response to an important local problem in MPS, a mid-Maryland suburban school district. According to the district's 2019 Consolidated Strategic Plan, schools at all levels, but especially middle schools, were not attaining high enough marks on the state's report card system as a result of low performance on state assessments. MPS leaders attributed the lower than expected achievement to low levels of CTE due to poor implementation of the district's new collaborative planning process. I studied

principal leadership of the process because I know of the importance of the principal in overseeing implementation of the planning process in all of the district's schools.

By employing a basic qualitative research design, I was able to learn how MPS middle school principals lead the process. Several findings from this study help to highlight areas for improvement in principal leadership. Through research on leadership coaching, I concluded that providing MPS district middle school principals with a coach may improve their leadership of the collaborative planning process. I discussed the background research on CTE, the local problem in MPS, my research methodology, findings, and recommendations in a position paper that I intend to give to district leaders.

My goal for the position paper is simple: to deepen MPS district leaders' understanding of how principals lead the collaborative planning process and to persuade them to adopt my policy recommendations, especially by procuring a leadership coach. I demonstrated the positive influence of effective principal leadership when I took over a struggling school several years ago; therefore, I believe that by ameliorating principal leadership of the process, CTE will increase. This will result in more students learning at deeper levels across the entire district. This is the positive social change I desire to see in the MPS district and at the local level.

My research was conducted with the goal of achieving positive social change in one school district. However, my research was also conducted within the larger context of an entire body of literature on CTE, most of which has been quantitative in nature. More qualitative research needs to occur on CTE, especially on the enabling conditions of CTE. Statistical relationships provide us generalizations about conditions known to

foster CTE, but they do not show the nuanced behaviors of individuals on a team and how they might illustrate those generalizations in real life. A qualitative researcher can begin a study by asking educators “How?” or “When?” for each of the enabling conditions identified by Donohoo et al. (2020).

I would also recommend that MPS conduct some additional research on CTE and the collaborative planning process implementation in their schools. MPS needs quantitative data about levels of CTE and perceptions about the enabling conditions. Both can be easily assessed with existing surveys. I would also recommend that MPS conduct additional qualitative research by observing and interviewing teachers who participate in the planning process and examining the documents produced by teachers during their collaborative meetings.

Conclusion

CTE has been identified as the number one factor influencing student achievement (Hattie, 2017). It has been shown to mitigate the deleterious effects of poverty on student learning (Hattie, 2017). If educational leaders are going to take a research-informed approach to educating all students, then they should explore how they can cultivate CTE as a way of increasing student achievement. Failure to act on this knowledge is inexcusable.

The conditions known to enable CTE have been tested and verified by Donohoo et al. (2020). Four of these conditions can be cultivated through a collaborative planning process: empowered teachers, embedded reflective practices, goal consensus, cohesive teacher knowledge, and supportive leadership. These conditions are malleable and can be

improved through informed leadership. Supportive principal leadership serves as the foundation for the other conditions.

Where principal leadership of the collaborative planning process lacks, the use of a leadership coach can help. Coaching is a job-embedded professional learning intervention that focuses on the specific goals of principals. Coaching has been shown to help principals increase student achievement. Coaching can help principals provide more effective leadership of the collaborative planning process in MPS. A more effective collaborative planning process may lead to greater levels of CTE. Greater levels of CTE may translate into higher levels of student achievement, an important social change sought by MPS leaders.

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Appendix A: Position Paper

Principals Cultivating Collective Teacher Efficacy: A Position Paper

Background

Collective teacher efficacy (CTE) is the belief of a group of teachers that together they can successfully educate their students (Goddard et al., 2000). CTE has been significantly and positively correlated with student achievement. Several studies have shown that levels of CTE correspond with levels of student performance in fourth grade reading and math (Goddard et al., 2021), elementary math and science (Qadach et al., 2020), kindergarten math (Jung et al., 2014), and secondary math (Archambault, 2012). Where there are higher levels of CTE, students demonstrate greater learning. CTE has also been found to be positively related to reducing achievement gaps. In one study, CTE not only correlated with higher levels of student achievement, but it also was related to a 50% reduction in the gap between Black and White students' achievement (Goddard et al., 2017). Hattie (2017) identified CTE as being the most important factor in student achievement, having an even greater influence on student learning than the negative effects of poverty. Poverty negatively influences CTE, but the deleterious effects can be mitigated by CTE (Hattie, 2017). Schools and districts looking to increase student achievement and to eliminate performance gaps related to race, ethnicity, or income level should invest in cultivating CTE as an improvement strategy. The cultivation of CTE is considered a best practice for this work (Donohoo et al., 2017).

Persistent gaps in student achievement scores illustrate the hard work that still exists in ensuring all students meet college and career readiness standards. Bolstering

CTE aids in this work. CTE has been shown to be significantly impactful on the motivation of teachers, the ability to persevere in the face of roadblocks, and teacher commitment (Goddard et al., 2000). Teachers who do not have collective efficacy are more likely to give up when faced with the challenges of educating students who have persistently struggled to learn. Teachers with low CTE have a sense that they do not have the ability to facilitate learning when their methods are unsuccessful. CTE has a positive relationship with teacher job satisfaction (Aydoğmuş & Serçe, 2021; Vatou & Vatou, 2019). When teachers in a school collectively believe in their own ability to educate students, they experience greater contentment about teaching. CTE has also been found to reduce teacher burnout (Aydoğmuş and Serçe, 2021). Burnout is reduced because teachers with higher levels of CTE are able to overcome barriers that may frustrate those with lower levels of CTE. Finally, teachers with higher levels of CTE have also believed they are better able to deliver culturally responsive instruction, a possibly important strategy for closing student achievement gaps (Chu & Garcia, 2021). All of these positive effects of CTE translate into teachers not giving up on students and keeping expectations high for all.

Like other forms of collective efficacy, CTE emanated from the concept of self-efficacy, the belief of an individual that they can achieve a desired outcome in a given situation (Bandura, 2000, 2018). CTE is more than the sum of its parts, or each teacher's contributing sense of individual efficacy (Goddard et al., 2000). There is a unique belief perspective that emerges in the dynamic of members of a group, team, or school interacting with one another. There are four main sources of CTE (Bandura, 2000;

Goddard et al., 2000). First, mastery experiences are successful experiences that, upon reflection, bolster belief in the ability to achieve the desired outcome. Second vicarious experiences entail people seeing or learning from others. Third, social persuasion involves the advocacy of people of influence. Finally, affective states are the interpretations of biofeedback in given situations that reinforce efficacy. CTE is a malleable and can be fostered by leaders who create opportunities to address the sources (Bandura, 2000).

The leadership of the principal has been shown to be important for the cultivation of CTE. Goddard et al. (2020) found that principals impact student achievement through the growth of CTE. Several studies revealed that principals often bolster CTE through the creation of collaborative planning or inquiry structures (Goddard et al., 2020; Patterson & O'Brien, 2021; Turkoglu et al., 2021). Within these structures, teachers have opportunities to co-plan, reflect upon their impact on student learning, and adjust their methods of instruction based on student learning results. They also have opportunities to learn from their peers. Principals also enhance CTE through the planning of effective professional learning experiences (Loughland & Nguyen, 2020). The instructional leadership skills of principals, including the ability to establish goals and expectations for learning, develop the instructional capability of teachers, and ensuring teacher quality, have been noted as important for cultivating CTE (Al-Mahdy et al., 2018; Qadach et al., 2020; Thien et al., 2021).

Donohoo et al. (2020) identified five enabling conditions of CTE: goal consensus, cohesive teacher knowledge, empowered teachers, embedded reflective practices, and

supportive leaders. The existence of the enabling conditions collectively creates an environment in which CTE grows. Goal consensus entails agreement among teachers and school administrators about school-wide goals. Whether the goals are relevant, reasonable, and attainable are all aspects of goal consensus. Cohesive teacher knowledge pertains to concurrence among teachers about effective instructional and assessment strategies. The enabling condition of empowered teachers deals with the practical ways in which teacher knowledge and expertise is valued by school leaders through listening and acting upon their opinions and ideas. The concept of empowered teachers is cultivated by affording teachers formal and informal leadership opportunities within the schools. Embedded reflective processes involves the establishment of routines in which teachers examine how their methods impact the learning of all students. When teachers are engaging appropriately with these processes, they adjust their instruction in response to evidence of student learning. Supportive leadership undergirds and fosters the first four enabling conditions. Supportive leadership is demonstrated by showing concern and giving support to teachers, as well as acknowledging their contributions. These aforementioned conditions can be strategically attended to by school principals in order to foster greater CTE. Some leaders use collaborative planning processes or structures to foster these conditions for the growth of CTE (Donohoo et al., 2020; Goddard et al., 2015).

The Local Problem

Leaders in Monocacy Public Schools (MPS, a pseudonym) developed a collaborative planning structure in 2017 for all schools as a strategy for fostering CTE,

knowing the positive correlation between CTE and student achievement. The ultimate goal of the process was to increase student achievement. MPS's collaborative planning process consisted of four integrated components: content knowledge, instructional design, evidence of learning, and student agency. Expected practices woven into the process included unpacking content standards, monitoring student learning, engaging in data-based decision making, sharing instructional practices, and examining student work. There are clear parallels between MPS's process and the enabling conditions of CTE identified by Donohoo et al. (2020). Despite implementation of this collaborative planning process in all of the district's schools, student achievement fell short of expectations. According to the district's 2019 Every Student Succeeds Act Consolidated Strategic Plan, district leaders conducted a root cause analysis on lagging Maryland State assessment scores in reading and math for their students, and they identified insufficient implementation of the collaborative planning process as a cause for low CTE and state test scores. The district's middle schools were highlighted for having the lowest scores on the Maryland report card system. This root cause analysis identified the following local problem that was investigated through a basic qualitative research study: MPS's district leaders have been unsuccessful in cultivating CTE through the district's collaborative planning process.

Research Study

A basic qualitative research study was developed to understand the problem. The study attempted to answer the following question: How do middle school principals in MPS cultivate CTE among their faculty through the district's collaborative planning

process? District leaders were already convinced that ineffective implementation of the collaborative planning process was a cause for lower than expected student achievement. A qualitative approach can help stakeholders understand the issue so that ways to address an issue of effectiveness can be developed. Answers to this question may help district leaders to better understand how principal leadership is influencing implementation of the collaborative planning process.

The purpose of this study was to explore how public middle school principals in MPS cultivate CTE in their schools through the district's collaborative planning process. In the study, semi-structured interviews were held with participating middle school principals ($N = 8$). The open-ended interview questions were created from the Enabling Conditions of CTE Scale (Donohoo et al, 2020). This scale was created by researchers who identified certain conditions that are conducive to the growth of CTE. These conditions are malleable and, therefore, can be explicitly addressed by leaders as a way of bolstering CTE.

Data gathered from these interviews were analyzed to identify patterns and themes. The research findings present a qualitative picture of how the district's middle school principals were demonstrating leadership of the collaborative planning process in their schools. Due to the differences in schedules and prior experiences of principals at different levels of the school system, the reader should be cautious about extrapolating the findings to principals at the elementary and high school levels for a few reasons. First, most elementary principals were responsible for teaching all core content areas—math, language arts, social studies, and science—when they were classroom teachers, so they

may have more knowledge about curriculum, instruction, and assessment in different subject areas than a middle school principal, who most likely only taught one subject before becoming an administrator. Second, for the high school principals, they have to contend with a planning structure that is very different than the one found in all of the district's middle schools, a structure that makes it more challenging for high school teachers to meet as often as middle school teachers for the collaborative planning process.

Summary of Findings

1. ***Principals Showed Deference in Trusting Teacher Professional Knowledge and Ability.*** Empowered teachers has been recognized as one of the conditions that enables CTE. MPS principals who participated in this study all recognized the importance of empowering teachers. Trusting them as professionals was mentioned by every participant. All of them spoke in different degrees of trusting the knowledge and expertise of their teachers in the collaborative planning process. This trust translated into teachers having autonomy to make important decisions regarding planning. Teachers were called the experts by most principals. Three participants described situations in which teachers had completed ownership over planning decisions and lesson delivery. While empowerment of teachers has been identified as one of the five conditions that aid in the cultivation of CTE, it needs to be balanced with the other conditions in the framework, especially cohesive teacher knowledge. If student achievement is not at satisfactory levels, according to district leaders, then it may be wise to question

whether or not teachers receive too much deference in planning and implementing lessons, as well as assessing student progress.

2. ***Middle School Principals Empowered Teachers in Formal and Informal Leadership Positions to Guide the Collaborative Planning Process.*** Every participant pointed out the importance of teacher leadership, especially formal leaders, such as department chairs and teacher specialists. Principals generally saw department chairs and teacher specialists as having greater knowledge and expertise when it comes to teaching their subject area although they did not have any special training in leading the teams. Principals saw teachers as informal school leaders by virtue of their participation in the collaborative planning process. Often formal leaders were equal participants in the process rather than directing it in a top-down fashion. These formal leaders sometimes served as resources of expertise for the team. There were a few situations in which the formal leaders exerted tremendous control over the direction of the teachers' work. One principal complained that a teacher specialist directed too much of collaborative planning meeting proceedings. One principal differentiated the level of control assumed by formal leaders based on the experience and perceived expertise of teachers.
3. ***Principals Acknowledged Teacher Accomplishments in the Collaborative Planning Process.*** Affirmation of teacher work is a key feature of supportive leadership. One principal had teams begin each meeting with every participant sharing a moment of success that week, so teachers took some ownership for their

own affirmation. A few principals reported highlighting effective instruction in faculty meetings and newsletters. However, most principals believed they best acknowledged the work of teachers in the collaborative planning process through meaningful conversations with them during meetings or after an observation.

Whenever principals help teachers to connect their praxis with positive learning outcomes, they aid in cultivating CTE. It would be wise for principals to consider how best to communicate regular, short-term teacher successes to foster CTE.

4. ***Principals Saw the Collaborative Planning Process as Job-embedded***

Professional Learning for Teachers. Study participants explained how the collaborative planning process provided job-embedded professional learning for teachers. All but one of the study's participants explained that teachers deepened their collective understanding of what constitutes cohesive teacher knowledge about effective instructional and assessment strategies through the use of formative assessment. The pedagogical capacity of teachers was developed, according to the principals, by a cycle of planning, teaching, and administering common formative assessments. Use of formative assessment was framed as a form of job-embedded professional learning for teachers. The results of the assessments were analyzed and interpreted to inform teachers about the efficacy of their instruction. One principal added that teachers also use common scoring of student work as a feature of this cycle. A few principals said that teachers would adjust their instruction if the results were not what were expected. Only one principal explained the importance of reviewing expectations for effective

instruction at the beginning of each year, and this began with the school's leadership team coming to consensus about desired instructional approaches. Some principals reported reliance upon the district's formal observation process to evaluate cohesive teacher knowledge. Unfortunately, the process only provides a few snapshots of teachers' instructional performance each year, so it may be of limited value as a tool for reinforcing cohesive teacher knowledge. One principal spoke of the importance of engaging teachers in discussions during collaborative planning process meetings as well as after conducting informal observations of teachers in their classrooms. If district leaders are not satisfied with student achievement results, it may also be wise to question whether or not the use of formative assessment should be the primary way of building cohesive teacher knowledge. MPS's collaborative planning process includes a component that focuses on content knowledge that includes unpacking curriculum standards, identifying potential misconceptions, and taking into consideration pre-requisite knowledge. When teachers have insufficient ability to unpack standards and comprehend the level of cognitive demand expected, they can design a system of planning, instruction, and assessment that fails to prepare students for the demands of the state assessment system. Maryland assesses student mastery of curriculum standards in math, language arts, science, and social studies in all middle schools. Differentiating teacher empowerment based on cohesive teacher knowledge, as one principal shared, may be a more meaningful way to cultivate lasting CTE. With proper checks in place, principals can be more confident that

the use of common formative assessments as an embedded reflective process can deepen cohesive teacher knowledge once a baseline of understanding has been established. Finding ways to verify with evidence the cohesive teacher knowledge in a school is also important.

5. *Principals Use of Different Schedules Contributed to the Collaborative*

Planning Process Success. Supportive leadership is the most important condition because the other conditions cannot be maximized without it. Principals cited the schedule as an important way in which they demonstrate support for the collaborative planning process. All of the principals required their collaborative planning process teams to meet at least once weekly. However, one principal admitted that teacher teams may not meet weekly when they are in the middle of a unit. Another principal said he expected teams to meet generally twice per week—one time with grade-level content-area teams, another time with content-area departments. If MPS's collaborative planning process integrates some many components of the conditions known to enable CTE, it would be wise to explore increasing the number of required planning meetings each week, at least from one to two. MPS's middle school schedule affords time for two meetings per week while ensuring teachers have sufficient independent planning time. Several principals shared about being strategic about how teachers are teamed in the schedule as a way of supporting the process. One principal emphasized the importance of pairing teachers with varying degrees of experience as a way of increasing teacher knowledge.

6. *Principals Were Open to Teacher Feedback as Part of the Collaborative*

Planning Process. Openness to feedback entailed principals making themselves available and open to teacher input about the process. All of the principals indicated a willingness to hear the concerns and recommendations of teachers as they participate in the process. One principal saw openness to feedback as being paramount in moving a team from basic compliance to the collaborative planning process to genuine commitment. A few principals highlighted the need to cultivate trust among teachers.

Recommendations

Recommendations for how to address the local problem are provided. They are based on the study findings are reviewed within four of the enabling conditions of CTE: teacher empowerment, embedded reflective practices, cohesive teacher knowledge, and supportive leadership (Donohoo et al., 2020).

- Principals should consider how they can show deference to the knowledge and ability of teachers by empowering them to the extent of their professional capacity. Teachers who have demonstrated success in educating students should be empowered to influence the direction of the collaborative planning process. Teachers who have struggled should receive more direction. In other words, teachers must be empowered within the context of an accountability framework.
- Principals should consider how they use their formal teacher leaders to support the collaborative planning process. This begins by ensuring these teacher leaders have the knowledge about effective instruction and assessment practices in order

to build cohesive teacher knowledge in schools. Once they have the capacity, then teacher leaders need to learn how they facilitate team meetings based on the cohesive teacher knowledge of the teacher participants. Teachers with significant knowledge need less direction.

- Principals should develop systematic ways for sharing the teaching successes that occur in their schools to foster CTE among the entire staff. An important component of this plan must be connecting specific strategies and approaches used by teachers with high levels of student attainment of learning outcomes. Acknowledging teacher successes in a strategic manner is an important way of demonstrating supportive leadership.
- Principals should also demonstrate supportive leadership of the collaborative planning process by requiring teams to meet twice per week. This sends the message that the work of teachers in these planning teams is paramount to the success of the school in educating all students.
- Principals should consider how they can more effectively embed professional learning through consistent use of reflective processes. Principals need to be able to evaluate instructional alignment of curriculum standards, effective instructional strategies, and assessment approaches in the plans of teachers in all core content areas. Since the focus of this study was on principal leadership of the collaborative planning process teams, the recommendations pertain to school leaders. However, a corresponding recommendation would be for teachers to

receive training to better understand the cognitive demands of the curriculum standards they teach.

- Principals should receive one year of leadership coaching as a job-embedded professional learning strategy to strengthen their leadership of the collaborative planning process. Principals will be more invested in working with someone if the coach is perceived as competent and trustworthy. Another important consideration when planning for principal buy-in is to ensure that a coach can spend a sufficient amount of time with principals. There are options for how to implement coaching support, including group coaching and coaching by an existing supervisor.

However, there are drawbacks to the aforementioned alternatives. Identifying a professional who can work one-on-one with each of the principals will be most impactful on improving principal leadership of the collaborative planning process.

Coaching

The leadership of a principal is often cited as a key feature in schools that are effective at educating all students (Chenoweth 2021). Unfortunately, principals are often not properly prepared for the demands of the position due to poor, overly theoretical preparation programs (Lewis & Jones, 2019). This means that many principals would benefit from ongoing, systematic, job-embedded professional development (Thessin & Louis, 2019). Professional learning experiences of a principal should be directly tied to their important responsibilities. One important study in Canada identified systematic, job-embedded professional development of principals as a central feature in high-performing districts (Leithwood & Azah, 2017). Providing a leadership coach for principals is one

strategy for building the capacity of school leaders in a systematic fashion. In one national study of principals, over one-half of respondents indicated that they previously had, or currently have, a coach (Wise & Cavazos, 2017).

Researchers have identified a number of positive influences of coaching programs. In one study, principals were more effective in implementing district initiatives when they had coaching support (Bush-Mecenas et al., 2020). Another study found coaching to be tied to increases in student achievement (Filippi & Hackmann, 2019). Principals have also been found to be more positive and optimistic with coaching support (Archer & Yates, 2017). A positive outlook is essential as principals face the real challenges of educating all students. Use of coaching has been identified as a more effective strategy than modeling alone for principals learning new skills and abilities (Kappler-Hewitt et al., 2020). For these reasons and more, coaching should be seen as an important school improvement strategy (Huggins et al., 2021).

Having a clear definition of coaching is essential. Coaching is a form of professional development that is job-embedded (Ray, 2017). The work of coaching is directly related to the responsibilities of principals (Flückiger et al., 2017). Coaching consists of a more experienced or knowledgeable professional aiding another professional in accomplishing specific job-related goals (Hayes & Burkett, 2020; Klar et al., 2020). Sometimes, mentoring and coaching are used interchangeably, but they are in fact different. Mentoring is open-ended, general support; whereas coaching has a clearly defined, goal-specific focus (Klar et al., 2020).

Coaching can be provided in a variety of ways. A coach can be effective in face-to-face meetings, as well as through the use of telephone calls, emails, and text messages (Cosner et al., 2018). Virtual coaching has also been found to be effective by coachees (Lewis & Jones, 2019). While individual coaching is more common, group coaching can also be effective (Houchens et al., 2017). Group coaching is certainly more cost effective for cash-strapped districts. However, principals may be less willing to be vulnerable about their challenges or weaknesses in front of colleagues than they would with an independent coach. Some districts are now calling upon principal supervisors to take on a coaching role with principals (Thessin & Louis, 2019). One research study found, however, that principals were less likely to be candid and open when a supervisor who evaluates them serves as a coach (Kappler et al., 2020). In addition, the varied responsibilities of a principal supervisor may limit their availability for coaching.

Several elements have been identified as being critical to the success of coaching. The amount of time that a coach spends with a principal was positively correlated with a principals' level of satisfaction about the coaching process (Wise & Cavazos, 2017). The importance of time makes sense when considering that coaching focuses on an area of importance to principals. It should come as no surprise that trust was another important feature of coaching experiences found to be beneficial by principals (Eastman, 2019; Ray, 2017). Principals needed to trust that they could be vulnerable about their shortcomings and their needs without judgment and without it being shared outside of the coaching relationship, especially with supervisors. Finally, the credibility of the coach was seen as important for principals. In one study, the positive experience of principals

was positively related to the perceived competency of the coach(Lackritz et al., 2019).

Generally, principals favored coaches who had successfully done the work themselves.

Findings from a study on principal leadership of the collaborative planning process in MPS middle schools indicate a need to ameliorate principal leadership in this area. Leadership coaching is an effective intervention that focuses on helping principals attain goals relevant to them. Since principals have varied strengths and needs, coaching can be tailored to support each individual involved in the process. Giving coaching support to MPS's middle school principals may improve their ability to lead collaborative planning process teams.

Conclusion

CTE the belief that a group of teachers can successfully educate their students, is an important concept to consider by educational leaders due to its relationship with student achievement. Simply put, teachers with higher levels of CTE get students to learn more. School and district leaders have taken notice and are focusing on the cultivation of CTE as a strategy to improve schools. Effective principal leadership is essential to growing CTE. Principals often foster CTE through the use of collaborative planning teams.

MPS created a collaborative planning process for teachers to employ in teams as a way to cultivate CTE. District leaders identified ineffective implementation of the teams as a reason why student achievement was lagging, especially in its middle schools. A qualitative research study was conducted to examine principal leadership of the teams.

Principal leadership of the teams was viewed through a framework of five, interrelated conditions that enable CTE.

An important finding of the research was that principals empowered teachers by paying considerable deference to the knowledge and skills of their teachers in the collaborative planning process. Another finding was that principals trusted the use of formative assessment in the collaborative planning process to inform cohesive teacher knowledge. Lower than expected student achievement may warrant questioning whether or not teachers have been given too much deference in the process. It may also be appropriate to question whether the use of formative assessment is sufficient to develop cohesive teacher knowledge.

An important recommendation is that district leaders build the capacity of principals to provide leadership of the collaborative planning process through the use of the evidence-based strategy of leadership coaching. Coaching principals in MPS should center around leadership that finds the correct balance between teacher empowerment and cohesive teacher knowledge. Finding a better balance may lead to greater levels of CTE, and greater levels of CTE may lead to more students in MPS learning at deeper levels.

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Appendix B: Interview Questions

1. Interview questions are based on Donohoo et al.'s (2020) study on the enabling conditions of CTE:
2. How are teachers entrusted to make important decisions in the collaborative planning process?
3. How are teachers provided authentic leadership opportunities in the collaborative planning process?
4. How do you acknowledge the accomplishments of individuals and teams regarding the collaborative planning process?
5. How do you ensure teachers use the collaborative planning process to re-examine the extent to which teaching practices support the learning of all students?
6. How do you ensure teachers use multiple sources of evidence in the collaborative planning process when considering student progress and achievement over time?
7. How do you ensure teachers use the collaborative planning process to seek feedback from students and use it to adjust their instruction?
8. How do you ensure the collaborative planning process determines and cultivates shared beliefs about instructional approaches that are most effective for student learning?
9. How do you ensure the collaborative planning process cultivates agreement among teachers about what constitutes effective classroom instruction?
10. How do you ensure the collaborative planning process cultivates agreement among teachers about effective assessment strategies that are most impactful?

11. How do you support teachers as they engage in the collaborative planning process?
12. How do you demonstrate concern for teachers as they engage in the collaborative planning process?
13. How do you protect teachers from being distracted by other responsibilities in order to focus on the collaborative planning process?
14. How do you ensure teachers have sufficient time to engage in the collaborative planning process?
15. How do you account for teacher opinions as they relate to the collaborative planning process?