Improving Collaboration During Middle School Common Planning Time: The Power of Protocols

by

Michael C. Hall

Bachelor of Arts, Marietta College, 2000

Master of Education, California University of Pennsylvania, 2009

Submitted to the Graduate Faculty of the

School of Education in partial fulfillment

of the requirements for the degree of

Doctor of Education

University of Pittsburgh

2022

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

This dissertation was presented

by

Michael C. Hall

It was defended on

June 23, 2022

and approved by

Keith Wayne Trahan, Visiting Assistant Professor, Department of Educational Foundations, Organizations, and Policy

Thomas W. Ralston, Visiting Assistant Professor, Department of Teaching, Learning, and Leading

Anthony Mooney, Middle School Principal, Quaker Valley School District

Dissertation Director: Charlene A. Trovato, Emeritus Clinical Associate Professor, Department of Teaching, Learning, and Leading

Improving Collaboration During Middle School Common Planning Time: The Power of Protocols

Michael C. Hall, EdD

University of Pittsburgh, 2022

Common planning time is an integral part of the middle school concept, but this time is not always used effectively. When teaching teams do not effectively collaborate, there are missed opportunities to improve instruction and student achievement. The aim of the study was to improve middle school teachers' level of collaboration during common planning through the use of the Looking At Student Thinking (LAST) protocol.

Participants selected a pseudonym and completed a pre- and post-survey aligned to the aspects of the collaborative inquiry cycle: dialogue, decision making, action taking, evaluation. Items included 12 questions from the teacher collaboration rubric (TCAR) and two open-ended questions. Each team participated in seven sessions related to the LAST protocol. Post-survey results showed an increase in the overall rating of each team's collaboration with differences between items per grade-level.

The results suggest the use of protocols can improve the instructional focus, impact the level of collaboration, and improve the usefulness of common planning time. Implementing the LAST protocol may provide a structure to help teams navigate the micropolitical aspects of common planning time and use common planning time more effectively.

KEYWORDS: middle school concept, common planning time, protocols, micropolitics, collaboration, collaborative inquiry cycle, teacher collaboration rubric

Table of Contents

Preface xi

1.0 Naming & Framing the Problem of Practice 1

1.1 Broader Problem Area 1

1.2 Organizational System 2

1.3 Statement of Problem of Practice 3

2.0 Review of Supporting Scholarship 5

2.1 Middle School Concept 5

2.1.1 Common Planning Time (CPT) 6

2.1.1.1 Benefits of Collaborative Planning Time 7

2.1.1.2 Barriers to Common Planning Time 8

2.2 Micropolitics of Collaborative Adult Learning 9

2.2.1 Collaborative Culture and Professional Development 12

2.2.2 Collaboration Versus Collegiality 13

2.3 Adult Learning Theories 14

2.3.1 Andragogy 14

2.3.2 Self-Directed Learning & Transformative Learning 15

2.3.3 Professional Learning Communities 16

2.4 Collaboration Interventions 17

2.5 Conclusion 21

3.0 Theory of Improvement & Implementation Plan 22

3.1 Theory of Improvement and the Change 22

3.1.1 Change Idea/Intervention.....22

3.1.2 Study Sample/Population 24

3.2 Methods & Measures 25

3.3 Analysis of Data..... 27

4.0 Findings..... 29

4.1 Introduction 29

4.2 Participants 30

4.3 Overall Results..... 30

4.3.1 To what extent did the intervention improve the team's instructional focus? 32

4.3.2 To what extent did the intervention impact collaboration during CPT? 43

4.3.2.1 Open-Ended Responses- Inquiry Question 2 51

4.3.3 To what extent did the intervention improve the usefulness of CPT? 55

5.0 Discussion..... 60

5.1 Findings and Discussions Related to Inquiry Questions..... 60

5.1.1 Discussion: To what extent did the intervention improve the team's instructional focus? 60

5.1.2 Discussion: To what extent did the intervention impact collaboration during CPT?.....64

5.1.3 Discussion: To what extent did the intervention improve the usefulness of CPT?.....66

5.2 Implication for Practice 67

5.3 Conclusion..... 68

Appendix A Common Planning Time Collaboration Survey 70

Bibliography 75

List of Tables

Table 1. DDAE Cycle of Inquiry/ High & Low Performing Teams/Learning From Student Work Protocol 20

Table 2. Intervention Schedule 26

Table 3. Looking At Student Thinking 26

Table 4. Data Collection & Analysis 28

Table 5. Participants Individual Pre-Post Survey Scores 31

Table 6. Inquiry Question 1 Composite Scores 32

Table 7. Inquiry Question 1 Composite Scores Per Grade Level 33

Table 8. Collaboration Score for Decision Making-Inquiry Question 1 35

Table 9. Collaboration Score by Grade Level for Decision Making -Inquiry Question 1 ... 36

Table 10. Collaboration Score for Action Taking -Inquiry Question 1 38

Table 11. Collaboration Score by Grade Level for Action Taking-Inquiry Question 1..... 39

Table 12. Collaboration Score for Evaluation -Inquiry Question 1 42

Table 13. Collaboration Score by Grade Level for Evaluation -Inquiry Question 1 42

Table 14. Inquiry Question 2 Composite Scores 43

Table 15. Inquiry Question 2 Composite Scores Per Grade Level 44

Table 16. Collaboration Score for Dialogue-Inquiry Question 2 47

Table 17. Collaboration Score by Grade Level for Dialogue-Inquiry Question 2 47

Table 18. Collaboration Score for Action Taking Inquiry Question 2 49

Table 19. Collaboration Score by Grade Level for Action Taking Inquiry Question 2 49

Table 20. Collaboration Score for Evaluation - Inquiry Question 2 50

Table 21. Collaboration Score by Grade Level for Evaluation Inquiry Question 2..... 51

Table 22. Themes: Describe the role of your personal relationships with members of your CPT team and how that influences your work?..... 55

Table 23. Themes: Please explain how you have used CPT time and how it has influenced your instructional practice. 59

List of Figures

Figure 1. Interpersonal Collaboration as a Cycle of Inquiry (Gajda & Koliba, 2007) 18

Preface

Getting to the end of this journey was a team effort. I am not sure I ever really envisioned myself reaching this point. There are many influential people surrounding me that have made this possible.

Working in a school district that supports the growth of their employees like mine does is a gift. The amazing students, school board, central office administration, building-level administration, teachers, and staff value education. Learning at any age is a top priority, and I am fortunate to have the position I have for as long as I have. I work with a group of fantastic teachers who love children. I am so thankful to work with so many incredible educators. I have plenty of people I need to thank for helping me get to this point in my career.

First and foremost, my family. My wife Dena and our four children, Clayton, Addie, Bethany, and Warren are the most supportive family on the planet and the most important people in my life. Dena, thank you for all the sacrifices you made to allow me the time and support I needed to dedicate to my coursework over the past three years. My career has been in large part because of your sacrifices. I love you and appreciate you. Your sacrifices and never wavering support and encouragement means the world to me. My children, thank you for understanding my time away and cheering me on along the way. I hope that you grow to value learning as much as your mother and I do.

I went into this program with two colleagues and friends, Keera and Kaitlin. You both gave me the push to consider the program. At times we thought we would not make it. Without the two of you, I am not sure I would have gotten to this point. I am so appreciative of your support.

My committee was a group of amazing educators. Dr. Trovato, thank you for advising me through this process. Your experience kept me calm and focused. Thank you for all you have given to the University of Pittsburgh and to me.

Dr. Trahan, your feedback was instrumental in my dissertation. I would walk away from each interaction learning and feeling more confident in this process. Thank you for all of your time.

Dr. Mooney, I appreciate your willingness to be a part of this committee. I value your perspective and attention to detail. Your feedback had a large impact on my dissertation. Thank you.

Dr. Ralston, your middle school background proved incredibly valuable to this study. Your impact on my career is remarkable. Without you being a part of my career, I am certain, I would not have reached this point. Your influence has personally and professionally impacted me beyond words.

Lastly, Dr. Susan Dawkins, I am so grateful for the help you provided with the editing of my work. Your help was crucial to getting to the final document.

1.0 Naming & Framing the Problem of Practice

1.1 Broader Problem Area

Any middle school adhering to the middle school concept is structured around basic tenets. Grouping students and teachers into interdisciplinary teams and providing common planning time for teachers are signature features (Eichhorn, 1966). Leaders are tasked with creating an environment that enables productive collegial interactions and enables employees to maximize their use of common planning time (CPT). Additionally, it is their professional responsibility to motivate employees and create a collaborative atmosphere.

Creating a collaborative environment takes intentional action by the leader. School leaders need to prepare teachers to use CPT appropriately. Though scheduling the dedicated time for CPT is a necessity, scheduling the time without preparing teachers on the appropriate use and purpose of the time will yield minimal improvement in teacher collaboration, learning, and instructional practice. Leaders need to prepare teachers by developing norms and protocols as well as articulating the expected use of CPT (Leane et.al., 2015; Palmer, 1993; Young, 2006). School leaders implementing the middle school concept do not always have teachers trained through their preparation programs to collaborate in their interdisciplinary teams (McEwin & Greene, 2010). The leaders are responsible for preparing teachers to embrace the tenets of the middle school concept and engage in collaborative work.

1.2 Organizational System

The school in this study is a small school district near Pittsburgh, Pennsylvania. Students at each grade level have a common set of core subject teachers, and both groups of teachers have daily grade level common planning time.

Grade level common planning time is organized into two teaching teams of seven teachers. The seventh and eighth-grade teams consist of one reading teacher, one English teacher, one social studies teacher, one science teacher, two math teachers, and one special education teacher. Each grade level has 40 minutes of common planning time (CPT) each day. Common planning time is scheduled in addition to a contracted daily individual planning time. Each team has a member designated as the team leader. The team leader works most closely with administration and is tasked with organizing the planning time.

There is open communication between each grade level team leader and the administration but expecting up to seven adults to work together every day can present challenges. With many different personalities and beliefs, conflict is to be expected. The school community values and believes in the need for team planning time. The organization's expectation is that this time is maximized and is focused on student academic, social, emotional support, and their own professional development. The teams have completely different identities; however, conflict exists in all. Conflict can stem from resisting change or ideas proposed by administration or colleagues and can make common planning time an emotional and or unproductive time. The emotions and influence of individual team members influence focus and productivity.

Team dynamics are influenced by the principal, who is responsible for establishing expectations and helping each team understand the purpose of team planning time. Providing explicit expectations and guidelines is key. Through observation and working with teams,

assessing each team's progress and providing feedback can be interpreted as not being supportive. The principal balances the need to trust the staff as professionals but also to provide accountability with the use of the established common planning time.

The relationship between leadership groups is positive, supportive, and respectful. However, this can change quickly. Union leadership, team leaders, and principals have challenging roles and tasks. Union leadership is responsible for supporting concerns and challenges raised by teachers. When change or new expectations are introduced to a team, challenges and questions are posed. If there is a lack of trust, vulnerability, and/or self-reflection, it can cause emotions that lead to a negative focus in common planning time. I have found when all voices are equally represented, teachers engage more, and common planning time is more productive.

1.3 Statement of Problem of Practice

Like most middle school teaching teams, the school in this study continues to evolve its use of daily 40-minute common planning time. Just as Jackson and Davis (2000) concluded, common planning time is not always used effectively. There are times when little happens and times when the team's focus is dominated by issues not aligned to the purpose of CPT. The result is decreased teacher collaboration, teacher disengagement, and an ineffective use of time. The school in this study has teaching teams that have positively developed as collaborative units over the past four years. Each team has improved to some level in use of their collaborative practices. Their improvement can be attributed to turnover in staff and team leadership as well as more structured team meetings. In order to continue on this path and apply the middle school concept

appropriately, there needs to be more emphasis on collaboration, instructional practices, and student thinking during common planning time.

There is an expectation for teachers to collaborate in meaningful and professional ways during common planning time, and the time afforded to teams is intended to promote collegial interactions (Duffield, 2014; Jackson, 2016). The school in this study focuses on collaborative professional development and emphasizes the teaching of collaboration amongst students. Without a structured and purposeful method to facilitate collaboration, a team cannot reach its full potential. The use of specific protocols can provide the structure necessary to facilitate collaboration among teachers. This school is ready to advance their collaborative practices. Establishing the conditions for this to take place is up to the principals and teacher leaders. When common planning time does not include structured collaboration dedicated to student learning, there are missed opportunities to improve teacher engagement in learning and increase student achievement.

2.0 Review of Supporting Scholarship

To fully understand the complexities of CPT collaboration, three areas of literature need to be explored: barriers and benefits of common planning time within the middle school environment, the micro politics of collaborative adult learning, and interventions that can impact teacher collaboration. The following are the guiding questions to this literature review.

- What are the barriers and benefits of common planning time as part of the middle school concept?
- How do micro-politics impact collaborative learning and school culture?
- What are the most effective interventions for productive adult collaboration?

2.1 Middle School Concept

The middle school concept developed in the 1960s addressed the unique developmental needs of young adolescents, primarily in grades 6-8 (Eichhorn, 1966). The middle school concept has some basic tenets, including grouping of students and teachers into interdisciplinary teams, using advisory support programs, and providing common teacher planning time (Eichhorn, 1966). Interdisciplinary teaching teams consist of at least one teacher from what is considered core content areas of math, English, social studies, and science. At times there are additional special education or elective subject teachers included. Advisory programs are typically small groups of students connected to a trusted adult in the school, and common planning time is a consistent meeting time for the teaching team.

These tenets help support the unique developmental needs of middle school students. Developmentally appropriate practices occur through intentional programming within the interdisciplinary teams and through student-centered instructional pedagogy. Interdisciplinary teaching teams consist of teachers from different content areas teaching a common group of students. The teachers on middle school interdisciplinary teams have dedicated time to collaborate during common planning time (CPT). The configuration of the middle school program and the level of implementation of the middle school concept are important. In a national survey study, McEwin and Green (2010) found that simply organizing schools by grades was not enough to provide the best learning environment for the age group. Rather, other factors, such as implementing CPT with fidelity and alignment to the middle school concept, need to be incorporated.

2.1.1 Common Planning Time (CPT)

Common planning time requires organizational structures that support interdisciplinary teaming. Interdisciplinary teams and CPT are among those structures and signature components of middle schools (Jackson & Davis, 2000; NMSA, 2010,). Flowers et al. (2000) stressed that common planning time, a regular time for teachers on interdisciplinary teams to plan together, is critical for implementing the middle school concept with fidelity (Flowers et al. 1999, 2000). McEwin and Greene (2010) found that the middle school concept is only advantageous if teachers are offered and capitalize on opportunities to plan and work collaboratively. When collaboration is done well, professional learning among teachers is impacted, thus influencing teacher engagement and instructional practices (Flowers et al., 2000.) The implementation of CPT varies depending upon the structures and protocols that have been put into place and the preparation of

teachers to maximize the planning time and use of protocols effectively (Leane et. al., 2015.) Therefore, CPT in the schedule does not ensure that the time is used well for teacher professional learning. In fact, Jackson and Davis (2000) showed that the effective and purposeful use of common planning time depends upon how well team members hold each other accountable and are committed to the work of the team. Ultimately, teachers on effective teams demonstrate mutual respect, trust, and appreciation of multiple perspectives and experiences to benefit student growth and development (Jackson & Davis, 2000).

2.1.1.1 Benefits of Collaborative Planning Time

Students are the ultimate beneficiaries of effective common planning time. Benefits of CPT include increased communication between teachers, the support and sharing of ideas, better support for children, and consistent implementation of policy and procedures (Duffield, 2014). Flowers et al. (1999) found that teaming improves climate, increases parental contacts, strengthens job satisfaction, and results in positive collegial interaction. An effective middle school is one that develops a positive climate from respectful interactions, and teaming has also been associated with higher student achievement (Flowers et al., 2000). High-performing middle schools fully implement CPT more than lower performing schools, and full implementation of CPT is important in its effectiveness (Flowers et al., 2000). Common planning time allows teams to develop and improve instructional practices (Duffield, 2014; Flowers et al., 2000; McEwin & Greene, 2010). McEwin and Greene's (2010) study cautioned that not having CPT could create mini high schools rather than well implemented middle schools and create a barrier to developmentally appropriate middle school programs.

2.1.1.2 Barriers to Common Planning Time

Barriers to the effectiveness of CPT are identified and discussed in the literature. These barriers include training and professional development regarding effective use of CPT, organizational structures and protocol use, and the relationships among teachers all create obstacles.

Training and professional development is lacking for teachers who are expected to use CPT. It is difficult to expect teachers to utilize CPT and teaming effectively without a sufficient understanding of the middle school concept. McEwin and Greene (2010) noted that teachers lack the specific professional development for the middle school age group they are working with. They found few educational programs that dedicate significant attention to the specific needs of middle school-aged students. When teachers do not understand the developmental needs of students, and leadership does not provide professional development on how to use CPT, effective collaboration is not exhibited. The lack of training causes ineffective use of the organizational structures and limited utilization of protocols.

The organizational structure of common planning time meetings is maximized by the implementation of protocols. Protocols are systems and procedures used to guide interactions of team members to help maximize the effective use of time. Without training or consistent use of protocols, teachers make judgements, and discussions may not be structured and focused. Already embedded norms and leadership influence the depth and type of discussions that can dominate meeting time (Young, 2006). Underutilized or non-established meeting norms or protocols affect the relationships and conflict that develops between team members (Young, 2006).

When conflict manifests between team members during collaborative planning time, interactions become a consistent barrier. As conflicts arise, teachers only partially engage and

move away from the established purpose of the time (Hurd, 2013). Duffield (2014) noted conflict among teams, with dysfunction, competition, and administrative interference as challenges for teachers to navigate. The personalities and relationships between team members, negative attitudes, lack of commitment, or getting off task all present as obstacles to effective usage of CPT (Duffield, 2014). Similarly, Franz et al. (2014) saw an absence of buy-in, lack of time, administrative interference, and off-task behaviors as barriers to CPT. The barriers are all affected by the micro politics of a group of teachers working together. Understanding the micro-political aspects of teacher relationships and how they help to establish or remove barriers to collaborative work will impact the effective use of CPT.

2.2 Micropolitics of Collaborative Adult Learning

Blase and Blase (2002) argue that teacher relationships with administration, students, parents, and colleagues are political, in that there are conflicts and difficult discourse inherent in the relationships. Hence, teachers develop an approach to protect and advance their own interests. For this reason, exploring teacher learning, teaming, and collaboration during common planning time through a micropolitical framework can allow for the understanding of how teams interact.

Micropolitics is defined as the organizational politics that occur daily and how educators use their political skill and influence to get what they want (Brosky, 2009). Brosky (2009) explains, "There are political forces within the school that dictate how things have been done, how things are done, and how things will be done" (p. 2). Burns (1961) first mentioned the term micropolitics and identified the main feature, the individual power resources used to create and change formal structure. Blase (1991) describes micropolitics:

> Micropolitics is about power and how people use it to influence others to protect themselves. It is about conflict and how people compete with each other to get what they want. It is about cooperation and how people build support among themselves to achieve their ends. It is about what people in all social settings think about and have strong feelings about, but what is often unspoken and not easily observed. The micropolitical perspective presents practicing administrators and scholars alike the fresh and provocative ways to think about human behaviors in schools. (pp. 1-2)

Schools are social places involving constant interaction and consistent power struggles, conflict, and collaboration. Brosky (2009) found that educators, particularly school leaders, demonstrate the use of political skill and influence in the form of sincerity, interpersonal influence, and social awareness. Palmer (1993) expresses the need for leaders to use these skills to provide avenues for people to do things they want to do but are unable to do alone. This can help to cultivate collaborative conversations on teaching and student learning and, in turn, help to navigate the micropolitical aspects of collaboration (Palmer, 1993).

Micropolitics in education involves the handling of conflict. Ultimately, how conflict is managed defines the community and the potential learning and change capacity (Achinstein, 2002). When people commit to something without conflict, they might simply be complying; however, people need an optimal level of conflict (DeLima, 2001). According to DeLima (2001), conflict leads to commitment, but not all conflict is good. Having the tools and approach to handle conflict is a major challenge for leaders in schools, specifically in educational environments with organizational structures that promote collaborative practices.

Applying a micropolitical lens to a middle school and its organization of middle school teams is appropriate. Willner (2011) stressed that organizations are socially constructed and that the interactive social process of the people shape the organizations. Palmer (1993) shares that ground rules must be in place to allow for creative conversations around a common purpose to occur. It is an expectation that interdisciplinary teams work collaboratively for shared goals. Achinstein's (2002) research addresses how teachers regulate micropolitics, specifically regarding how conflict is managed. She found that conflict can create a place for growth and learning. As a result, teachers' micropolitical processes help to uncover power, individual influence, and conflict that are inevitable when working with others on a team. In addition, Achinstein (2002) acknowledges that developing a collaborative culture with teachers will spark conflict and found a large variance in the way teaching teams deal with the conflict. The effective and purposeful use of common planning time depends therefore upon how well the team's members exercise accountability, collaboration, and commitment within the team (Jackson & Davis, 2000). Without addressing the micropolitics of the teachers being expected to collaborate, teacher collaboration will not reach the intended impact of improving teaching practices and student achievement. Ignoring micropolitics within the educational environment can lead to superficial interactions. Without handling the micropolitical aspects of a collaborative team, one is ignoring the social emotional component of collaboration. Kelchtermans (2006) explained that without the feeling of safety and trust, teachers do not feel as good about their jobs and are not as willing to engage in collaborative professional development.

The literature on the micropolitics in teacher collaboration ultimately endorses teacher collaboration as having a positive impact on school culture. Furthermore, it bolsters the need to create processes to manage the complexity of creating a collaborative culture. Leadership should

create the path for collaborative learning, establish ground rules for instructional discussions, and help educators move past only discussing the technique of teaching but rather move into an environment focused on student learning (Palmer, 1993). Doing this will help navigate the micropolitics of adult learning and impact instructional decisions.

2.2.1 Collaborative Culture and Professional Development

Attending to the micropolitical influences that teachers navigate is necessary to build a collaborative culture to enhance collaborative professional development. A collaborative culture can be developed and improved through administrative supported professional development (Hargreaves & Dawe, 1990). If a culture of collaboration is not created, additional informal and voluntary collaboration will not take place (Kelchtermans, 2006). The process of creating a collaborative culture and building a successful community of teachers that can work together can be a difficult and problematic process. In fact, it is the process that influences the impact professional development activities have on teacher improvement (Graham, 2007). For example, collaborative professional development can empower teachers to be reflective, break teacher isolation, and adopt preferred teaching styles (Hargreaves & Dawe, 1990).

In contrast, Hargreaves and Dawe (1990) also pointed out that there is a possible danger in collaborative professional development in that it can develop loyalties to non-preferred purposes or structures. For example, a group of teachers may provide positive reinforcement or affirmation to a teaching strategy that the administration is hoping to change. An undesirable approach could then be affirmed through the micropolitical interactions of collaboration. Woodland and Mazur (2015) cautioned that collaboration could lack the discourse needed for instructional improvement, and the work can reinforce old practices without really assessing them.

2.2.2 Collaboration Versus Collegiality

Collaborative professional development leads to establishing a connection between collaboration and collegiality that can inform teaching practices. Collegiality in education refers to the cooperation between colleagues. Within the middle school concept, cooperation between colleagues is a foundational piece to common planning time. Kelchtermans (2006) argued, "The cultural and structural working conditions in schools determine and mediate actual teacher collaboration, as well as the way 'collegiality' is experienced and valued by the staff members" (p. 222). Hargreaves and Dave (1990) argued that there is a difference between collaborative culture and contrived collegiality. Contrived collegiality is when administrators control the collaboration and adults can go through the motions of interacting professionally in a kind way. A collaborative culture is one in which teachers seek feedback from peers and are vulnerable with each other with the goal of learning. These collaborative actions and collegial relationships have an impact on teachers and their work environment (Kelchtermans, 2006). Collaboration does not automatically go along with collegiality.

Additional research from DeLima (2001) contended that collaboration should involve conflict and that collegiality does not elicit and sustain change. DeLima (2001) also suggested the need to find ways to promote conflict to help bring about change because collegiality does not promote change. An appropriate level of conflict is necessary to gain commitment because without conflict, collaboration turns to cooperation and compliance (DeLima, 2001). In the middle school CPT setting, there are opportunities to appropriately promote conflict within the team while moving past simple cooperation and into meaningful collaboration. Effective use of CPT is dependent on how collegiality, conflict, and collaboration are handled.

To identify and navigate cooperation, conflict, and collaboration, Hurd (2013) recommended more attention be given to the specific activities that impact the teachers' experiences during CPT. For this reason, literature on how adults learn, and all aspects of collaboration can help inform ways to make the most out of teaming, CPT, and the overall teacher experience.

2.3 Adult Learning Theories

Just as it is important to understand the micropolitical nature of teacher collaboration and collaborative culture, it is equally important to understand the theories behind how adults learn. Adult learning and collaboration are focus areas when trying to improve instructional practice. Because adults are being asked to learn and collaborate during CPT, adult learning theories can provide a foundational understanding of how adults learn, and the ways people collaborate.

2.3.1 Andragogy

Knowles (1980) used the term andragogy, the science of how adults learn, and compared it to the more commonly known science of pedagogy, the science of how children learn. He noted four basic assumptions to support the theory of andragogy. These individual assumptions are that adults move from dependency to self-direction in learning and that their experiences become a resource for learning. In addition, their social roles increase their readiness to learn, and their perspective changes to wanting to apply new knowledge immediately (Knowles, 1980). These assumptions lead to various implications for practice. For example, setting a cooperative learning

climate, assessing specific interests and needs, setting objectives and designing activities to meet those needs, working collaboratively, and assessing the learning are practice-oriented ways to approach adult learning (Teaching Excellence in Adult Learning Center, 2011). Ultimately, adults need to know why they are learning.

2.3.2 Self-Directed Learning & Transformative Learning

Self-directed learning has similar tenets to andragogy. Self-directed learning differs in that its focus is on the informal processes taking place outside the classroom, where the learner is making the decisions about what and how they are learning. The learner determines their learning needs and plans their own path to reaching goals (Teaching Excellence in Adult Learning Center, 2011). According to Loeng (2020), the need to control the learning situation is tied to a person's willingness to reflect and make critical judgments. Adults and children each are at different levels of ability to be self-directed. Adjusting to the varying self-directed abilities can impact learning environments (Loeng, 2020).

Transformational learning, which shares some characteristics of andragogy, is described as a type of learning that completely changes the way people think (Teaching Excellence in Adult Learning Center, 2011). Transformative learning calls for creating a climate to support this learning and understanding the learner's interests. However, to be transformative, the activities developed should focus on exploring different points of view (Teaching Excellence in Adult Learning Center, 2011). It is through developing new understandings that learning shifts to become transformative (King, 2004).

All three of these theories illustrate various adult learning needs. Adults are assumed to be in control of their own learning. In addition, adults need to be able to have a voice in what they are learning and how they are learning it. There are adult learning opportunities in the use of common planning time. Therefore, understanding how adults learn should impact the interventions and expectations of how teachers effectively use common planning time.

2.3.3 Professional Learning Communities

Because of the way adults learn, K-12 schools have developed formal ways for teachers to learn together. One of the most common is the establishment of professional learning communities (PLCs). PLCs are a framework used to transform schools. A PLC is a collaborative team working toward common goals, wanting to learn from each other regarding best practices, willing to take action and continually improve, and focusing on results (DuFour et al. 2004).

PLCs promote instructional improvement, disciplined collaboration, and sharing of practices and classroom-based assessments (Woodland, 2015). DuFour (2004) argued that PLCs can avoid the "fad" label of improvement ideas if the focus is on student learning, a culture of collaboration, and results. According to Graham (2007), there is a strong positive relationship between PLC activities and teacher improvement. Nevertheless, the relationship is complex and depends on multiple factors. The essential factors that influence this relationship are common planning time, the level of collaboration required by the principal, and the support given to team development (Graham, 2007). In short, PLCs can lead to the intended improvement in knowledge, skills, and teaching practices.

Applying PLCs to middle school teachers' CPT offers teachers the opportunity for intentional collaboration through PLC activities (Graham, 2007; Woodland & Mazur, 2015). It should be noted that if PLCs lack focus on student learning, there will be frustration and no meaningful improvement (Woodland & Mazur, 2015). Additionally, Graham's (2007) findings on mediating conversations are applicable to CPT. Finding ways to positively impact the social and professional dynamics of PLCs and CPT may be beneficial. Additional research could provide school leaders with tools to positively impact the relationships between teachers, and their ability to effectively collaborate.

2.4 Collaboration Interventions

Evidence-based tools exist for teams to implement during CPT. Training, and the support to utilize interventions can contribute to CPT's effectiveness. There must be consistent administrative support and professional development for CPT to be effective (Mee, 2013). Mee's (2013) study showed when support exists, there are positive outcomes with student behavior, with student achievement, and with teacher work climate. Additionally, four important aspects of school culture are enhanced with effective CPT: support, communication, professionalism, and trust (Faulkner & Cook, 2013).

The literature is clear that there are interventions that have been helpful in creating a productive collaborative teacher environment. Teacher teams with leadership that supports structured collaboration, adheres to team meeting norms, and utilizes protocols can impact the effectiveness of teacher collaboration. (Colton & Langer, 2005; Leane et. al., 2015; Young, 2006). All of these types of interventions relate to what is known as the collaborative inquiry cycle. The

literature collectively identifies the dialogue, decision making, action taking, and evaluation of a collaborative team as what makes up this cycle of inquiry (Colton & Langer, 2005; Gajda & Koliba, 2007; Woodland at el. 2013). Goodlan at el. (2004) applied the acronym DDAE to this inquiry cycle.

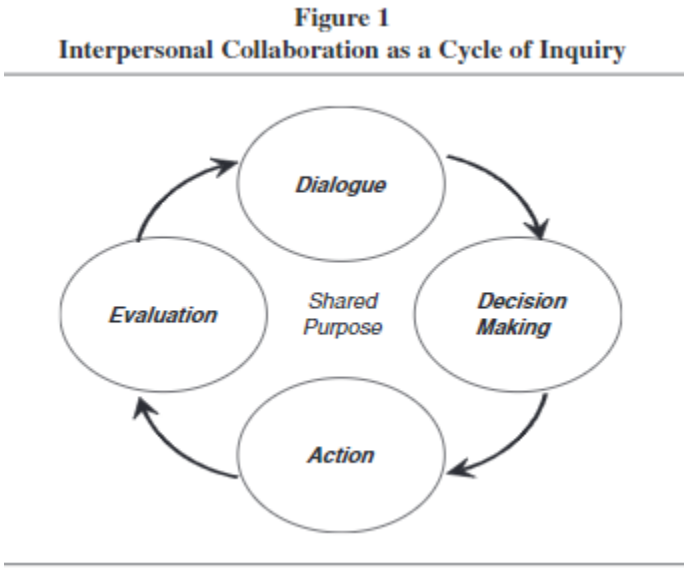

Figure 1. Interpersonal Collaboration as a Cycle of Inquiry (Gajda & Koliba, 2007)

Administration plays a key role in influencing the DDAE cycle of collaborative inquiry. By focusing on organizational structure and teacher behaviors, administrators can influence collaborative practices. These practices can either help or hinder teacher collaboration based on the structure of meetings and commitment to team norms. Team norms are created through the DDAE cycle. Teachers discuss needed behaviors and structures for team meetings, decide on acceptable guidelines, adhere to them in practice, and periodically evaluate their effectiveness. Assisting collaboration between teachers can positively affect student achievement. In the end, team norms requiring productive use of meeting time leads to collaboration becoming more fruitful (Leane et. al., 2015; Young, 2006).

Established team norms can include the use of protocols. Discussion-based protocols help to organize discussions by interrupting the normal flow of conversation, forcing participants to slow down and focus on the topic at hand. By doing this, an equal voice is welcomed. Discussion-based protocols create a safe place to ask tough questions (Little et al., 2003). Colton and Langer (2005) found that the collaborative process is most beneficial when a framework is used, collaborative norms are followed, and administration supports the structure.

It is collaborative inquiry that increases a teacher's knowledge (Colton & Langer, 2005). The four interrelated elements of the teacher collaboration cycle of inquiry – dialogue, decision making, action taking, and evaluation (DDAE) – are present in effective teacher teams (Woodland et al., 2013). Structured protocols that connect to each of these elements impact teacher collaboration during CPT.

A structured intervention of collaboratively looking at student work could benefit both teaching and learning (Little et al., 2003). This type of collaborative analysis of student learning allows for multiple interpretations of the same piece of student work. Using structured protocols to examine student work helps to start conversations and focuses on evidence of student learning, increases teacher knowledge, and fosters a collaborative environment (Little et al., 2003).

The Looking At Student Thinking Protocol, an evidence-based structured protocol, comes from a project of Project Zero at Harvard University, Cultures of Thinking (Cultures, 2022). Cultures (2022) explains the project as "places where a group's collective as well as individual thinking is valued, visible, and actively promoted as part of the regular, day-to-day experience of all group members" (para. 1). This protocol allows teams to be fully engaged in the DDAE cycle of inquiry, potentially impacting the overall collaboration of the teachers during CPT (Learning,

n.d.). Table 1 illustrates the alignment of the Looking At Student Thinking Protocol to the DDAE cycle of inquiry and high and low performing teams.

Table 1. DDAE Cycle of Inquiry/ High & Low Performing Teams/Learning From Student Work Protocol
(Looking, n.d.; Gajda & Koliba, 2007; Woodland et al, 2013)

DDAE	High-Performing Teams	Low-Performing Teams	Looking at Student Thinking Protocol
Dialogue	● Address disagreements ● Work through problems ● Conversations about instruction, student learning, and achievement	● Focus on confirming current instructional practices ● Focus on tasks like: scheduling, grouping of students, discipline, etc. ● Avoidance of focused dialogue on reflection	● Presentation of student work sample ● Description of assignment
Decision Making	● Focus on student learning and quality instructional practices ● Acknowledge some teaching produces better results	● Decisions align with general agreement of instructional practice ● Does not lead to instructional improvements	● Providing evidence to support observations ● Interpret the work based on evidence ● Make inferences from student perspective
Action Taking	● Actions relate directly to improving practices related to dialogue and decision making	● Actions are limited and do not move past planning	● Implication for student practice based on presentation and interpretation ● Implication for future teaching and assessment
Evaluation	● Systematically analyze qualitative and quantitative data related to learning	● Evaluation consists of general conversations	● Presenter reflects on what was discussed ● Debrief on the process

2.5 Conclusion

This review of literature supports the idea of using an intervention during CPT to improve teacher collaboration as it pertains to instructional practice. There are established benefits and barriers to the utilization of this time. Understanding the micropolitics of how adults learn, and the usefulness of interventions can help navigate those barriers and increase teacher collaboration.

In the middle school structure, the component of common planning time is implemented from a structural and organizational standpoint. The benefits have been widely accepted, and, therefore, many middle schools still adhere to the middle school concept today (Duffield, 2014; Eichhorn, 1966; Flowers et al., 2000; Jackson & Davis, 2000; Leane et. al., 2015; McEwin & Greene, 2010; NMSA, 2010). Common planning time needs to be managed. Though research notes benefits to the structure, the structure alone is not enough. Hurd (2013) calls for increased attention to the individual teacher's experience and reports that when teachers experience authentic collaboration and administrative support with CPT, the benefits of this time resonate throughout the school. High levels of teacher collaboration follow a cycle of collaborative inquiry. Assessing a team's level of collaborative practice through the lens of collaborative inquiry can provide information on the team's effective use of CPT. Implementing interventions such as evidence-based protocols that align with the collaborative cycle of inquiry will impact team collaboration and the effective use of CPT.

3.0 Theory of Improvement & Implementation Plan

3.1 Theory of Improvement and the Change

Providing common teacher planning time for grade-level teams to support teachers and students aligns with the middle school concept (Eichorn, 1966). Therefore, removing barriers to the effective use of this time has the potential to increase teacher satisfaction in their jobs, improve teacher learning, and affect student achievement. Increasing the collaborative practices within the team will result in more effective use of CPT.

Implementing changes to improve teacher collaboration in CPT around student learning will help to neutralize or eliminate barriers. It will provide the room for each teacher to fully engage. For this reason, interventions provided teachers the tools to navigate the micropolitics of teacher collaboration. It was hypothesized that use of evidence-based protocols would cause teachers to engage in the collaborative cycle of inquiry, thus resulting in more effective use of CPT. When teams engage in a collaborative cycle of inquiry, common planning time can lead to improvement. In the end, when leaders support structured collaboration through the use of protocols, common planning time can be more effective.

3.1.1 Change Idea/Intervention

There are benefits and barriers to the effective use of CPT. Most teachers are able to explain what works well and what does not. When multiple adults are forced to work together, there will be obstacles. Overall, teams want to be more inclusive and want guidance from administration

(Duffield, 2014). Pounder (1998) found that instructional practices remain unchanged due to conflict avoidance that can cause teachers to avoid instructional and philosophical issues. As Woodland et al. (2013) noted, "High-quality teacher collaboration entails teachers working closely with colleagues during the workday to examine student-learning data and solve problems of instructional practice through continuous cycle of dialogue, decision making, action taking, and evaluation" (p.443). Because of this, facilitating an intervention that attempts to structure a team's work around collaboratively examining student thinking may directly impact the overall effective use of their CPT.

The aim of this intervention was to implement an evidence-based protocol to increase the collaboration between teachers, thus improving the use of common planning time and impacting student achievement. Teaching teams were trained on how to use the Looking At Student Thinking Protocol (LAST). This protocol comes from a project of Project Zero at Harvard University, Cultures of Thinking (Cultures, 2022). Cultures (2022) explains the project as "places where a group's collective as well as individual thinking is valued, visible, and actively promoted as part of the regular, day-to-day experience of all group members" (para. 1).

The LAST protocol has structured steps for teachers to follow. This protocol provides guidance for the student work teachers elect to share, how to share and discuss the work, and guidance on reflecting on the process. The main goal is to help teachers discover how their students are understanding and thinking. The actual student work samples are the main focus. Since the process asks for evidence of student thinking, colleague thinking, and their own thinking, it will increase collaboration and effective use of CPT (Looking, n.d.).

Three inquiry questions covering instructional aspects, structure and process, and social dynamics of common planning time guided this work. The Looking At Student Thinking protocol

aimed to improve a teacher's experience in all three areas. The following inquiry questions were studied:

1. To what extent did the intervention improve the team's instructional focus?
2. To what extent did the intervention impact collaboration during CPT?
3. To what extent did the intervention improve the usefulness of CPT?

Survey questions adapted from the Teacher Collaboration Assessment Rubric (TCAR) and this intervention provided examples and guidance on how to best utilize CPT and collaborate effectively (Woodland, 2016). This process focused CPT on collaboration between teachers to focus on student work. Because avoiding conflict and micropolitical aspects of the team were consistent barriers to effective use of the time, this intervention could help focus discussion specifically on student work and learning, thus increasing engagement and effective use of time.

3.1.2 Study Sample/Population

Grade-level teaching teams worked with the administration with this intervention. Administration initiated and explained the protocol and expectation. Fourteen teachers were involved in the intervention. The two grade-level teams, one each for seventh and eighth-grade, each consist of seven teachers. Each group meets daily during their established team meeting time. This intervention was part of the typical professional development of each team. Common planning time is scheduled for these teams every day for 40 minutes.

With permission from Dr. Rebecca Woodland, the researcher utilized questions from the TCAR rubric and developed additional open-ended questions to create a common planning time collaboration survey (Appendix A). This survey was created in Qualtrics to align with the three inquiry questions. The team structure was in place, allowed for few obstacles with implementation.

3.2 Methods & Measures

Prior to implementing this protocol, participants completed the survey (Appendix A) to serve as a pre-assessment. The survey questions were administered through Qualtrics software and directly aligned to the inquiry questions. Participants selected pseudonyms to use as their anonymous identifiers when taking the pre- and post-survey.

The assessment questions were grouped to align with the three inquiry questions. The first block of questions aligned to inquiry question one. There were seven total scaled items from the decision making, action, and evaluation components of the TCAR. The second block of questions aligned to inquiry question two. This block was a selection of five total scaled items from the dialogue, action, and evaluation components of the TCAR as well as one open-ended question. The final block of questions aligned to inquiry question three. This block contained one open-ended question. Participants recalled the pseudonym used for the pretest to use when taking the posttest. The post-survey was the same pretest survey.

There were seven sessions, one session to introduce and model the protocol followed by six additional sessions. The entire intervention ran over a five-week time period. Following the completion of the pre-assessment survey, the use of LAST protocol by using a student work sample was modeled. Each team member was assigned a specific week to bring their own work sample. Following the five-week time period, teachers again took the common planning time collaboration survey.

Table 2. Intervention Schedule

Week 1 (session 1)	Pre-Assessment /Modeling of Protocol
Week 2 (session 2)	Teacher 1 presents
Week 3 (session 3)	Teacher 2 presents
Week 4 (session 4 & 5)	Teachers 3 & 4 present
Week 5 (session 6 & 7)	Teachers 5 & 6 present / Post Assessment

Table 3. Looking At Student Thinking
(Looking, n.d)

Step 1: Presenting the work (≦ 5 minutes)	● Presenting teachers provides the context, goals, and requirements of the task. ● Group asks clarifying questions that will help to understand the work.
Step 2: Reading the work (≦ 5 minutes)	● Group members work silently and take notes ● Categorize notes to fit the later stages in the protocol
Step 3: Describing the Student Work (≦ 5 minutes)	● Presenting teacher does not talk- only takes notes ● The facilitator asks: "What do you see in the work itself?" ● Avoid interpretation -point out what things can be seen. ● Purpose is to raise awareness of all the work features.
Step 4: Speculating about the Students' Thinking (≦ 5 minutes)	● The facilitator asks: "From the student's perspective, what is the student working on?" ● Group tries to make sense of what the student was doing and why by finding as many interpretations as possible and comparing to the evidence. ● Infer what the student was thinking and why; what the student understands; what the student is interested in; how the student interpreted the assignment. ● Think broadly and creatively; see what the student sees. ● Group asks questions and listens to others' perspectives.
Step 5: Asking Questions about the work (≦ 5 minutes)	● The facilitator asks: "What are the implications of this work for teaching and assessment?" ● Discuss any implications this work might have for teaching and assessment in the classroom. Consider: 1. What steps could the teacher take next with the student? 2. What teaching strategies might be most effective? 3. What else would you like to see in the student work? What kinds of assignments or assessments could

Table 3 continued

	provide this information? 4. What does this conversation make you think about in terms of your own practices? Teaching and learning in general?
Step 6: Discuss implications for teaching and learning (≦ 5 minutes)	● The presenter shares back what they learned about the student, the work, and what they are now thinking. ● Discussion opens up to the larger group to discuss what they learned about the student, colleagues, and self.
Step 7: Debriefing the Conversation & Protocol (≦ 10 minutes)	● Presenting teacher responds to the discussion ○ What have you as presenter gained from listening, explain your thinking and possible next steps. ● Group reflection on the process, prepare for next session

3.3 Analysis of Data

A pre-assessment Qualtrics survey took place with questions aligned to the three inquiry questions. Each item was rated on a three-point ordinal scale. The descriptors in the first column are worth two points and the last column are worth zero. This survey was given prior to the intervention and following the intervention. It was given to all teachers and remained anonymous.

The quantitative survey data was analyzed with descriptive statistics, specifically the mean responses and frequency distribution sorted by grade level and total participants. The data was analyzed by area of collaborative inquiry. This allowed for analyzing the results thoroughly and the ability to visually represent the data through tables. The data gathered from the pre-survey was compared to the post-survey. The results illustrated whether the intervention had an impact on the teachers' collaborative practices during common planning time.

The qualitative data from the two open-ended questions was coded. Meaning units and condensed meaning units were identified, followed by coding the condensed units, and then categorized. Themes that emerge indicate possible change caused by the intervention.

Table 4. Data Collection & Analysis

Inquiry questions	Data Collection	Data Analysis
To what extent did the intervention improve the team's instructional focus?	Question Block 1 of Survey: Question 1-7	<u>Qualtrics: Descriptive statistics</u> Mean response/rating: ●Per grade level team and total participants ●Per question ●Pre-Post changes
To what extent did the intervention impact collaboration during CPT?	Question Block 2 of Survey: Questions 8-12 & Open-ended question 1	<u>Qualtrics: Descriptive statistics</u> Mean response/rating: ●Per grade level team and total participants ●Per question ●Pre-Post changes <u>Content Analysis:</u> code and categorized open-ended question ●Per grade level team and total participants ●Per question ●Pre-Post changes
To what extent did the intervention improve the usefulness of CPT?	Question Block 3 of Survey: Open-ended question 2	<u>Content Analysis:</u> code and categorized open-ended question ●Per grade level team and total participants ●Per question ●Pre-Post changes

4.0 Findings

4.1 Introduction

Middle school teaming calls for the effective use of common planning time. The level of collaboration impacts the effective use of this time. Effective teacher collaboration during common planning time (CPT) is an intended outcome of middle school teaming. Common planning time is not always used effectively (Jackson & Davis, 2000). Finding ways to impact the use of this time can be a challenge. When common planning time does not include structured collaboration dedicated to student learning, there are missed opportunities to improve teacher engagement in learning and increase student achievement. The lack of training, lack of protocol use, and the micropolitical aspects of collaborative adult learning were all previously discussed barriers to effective use of CPT (Blase, 1991; Duffield, 2014; Hurd, 2013; McEwin & Greene, 2010; Young, 2006). This study's aim was to determine if the intervention of the Looking At Student Thinking protocol would improve the team's instructional focus, collaboration, and use of CPT.

The Looking At Student Thinking Protocol was implemented to improve the level of collaboration of middle school teaching teams' common planning time (Cultures, 2022). This intervention contained a pre- and post-survey given to all participants. The Teacher Collaboration Assessment Rubric (TCAR) was modified by grouping selected questions that aligned to inquiry questions (Woodland, 2016). Twelve TCAR questions were used. Seven questions aligned to inquiry question one, and five questions aligned to inquiry two. By following the directions of the TCAR, responses were coded with a point value of 2, 1, or 0. The higher value was assigned to the statement associated with the highest level of collaboration. Statements indicating the highest

level of collaboration were assigned a value of 2; statements of the lowest level of collaboration were assigned a value of 0. Two open-ended questions provided data for the second and third inquiry question. Results are reported by inquiry question.

Inquiry Questions:

1. To what extent did the intervention improve the team's instructional focus?
2. To what extent did the intervention impact collaboration during CPT?
3. To what extent did the intervention improve the usefulness of CPT?

4.2 Participants

The participants in this study were 14 (100%) seventh and eighth-grade teachers. Seven were seventh-grade teachers and seven were eighth-grade teachers. All participants fully completed both the pre- and post-surveys. Each grade-level team of teachers consisted of the following teaching roles: two math teachers, two English teachers, one science teacher, one social studies teacher, and one learning support teacher. All 14 teachers had over five years of teaching experience. Of the 14 total teachers, 13 have been working on their current teaching team for over four years. Having common planning time (CPT) every day for 40 minutes is part of their daily schedule. All participants (n=14), used a pseudonym when responding to the surveys.

4.3 Overall Results

Of the 14 participants, 79% (n=11) increased their overall mean score or maintained the same score. Ten (71%) participants increased their score, and one individual on the seventh-grade

team, .07% (n=1), recorded the same score of 22 on both the pre-survey and post-survey (max score=22). Of the remaining participants, three (21%) recorded a lower mean score; two were seventh-grade teachers and one was an eighth-grade teacher. Table 5 below shows participants' individual scores.

Table 5. Participants Individual Pre-Post Survey Scores

7th Grade Pseudonyms	Pre	Post	Change		8th Grade Pseudonyms	Pre	Post	Change
MP	14	20	+6		JO	21	24	+3
SR	19	14	-5		AL	7	8	+1
SH	16	17	+1		PH	15	16	+1
CM	18	17	-1		JT	18	20	+2
AV	14	20	+6		TL	10	15	+5
BM	12	16	+4		GF	9	13	+4
TC	22	22	0		ST	15	13	-2
MEAN:	16	18	+2		MEAN:	14	16	+2

The overall mean scores of all TCAR questions demonstrated an increase in mean scores from the pre-survey to the post-survey and can be viewed in Table 6. The mean of all seventh-grade responses increased by +1.6, and the mean of all eighth-grade responses increased by +2.0. The combined mean score increased by +1.8.

4.3.1 To what extent did the intervention improve the team's instructional focus?

Of the four areas of the cycle of collaborative inquiry – dialogue, decision making, action taking, and evaluation (DDAE) – the questions most closely aligned to inquiry question one came from three of the four areas: decision making, action taking, and evaluation (DAE).

Table 6 displays the composite score of the survey questions related to inquiry question one: To what extent did the intervention improve the team's instructional focus? The composite score from the pre-survey was 1.3, and the post test was 1.4. Each domain's composite scores increased by +.1 or +.2.

Table 6. Inquiry Question 1 Composite Scores

Composite Score-Inquiry Question 1 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.3	1.4
Inquiry Question 1 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Decision Making	1.4	1.5
Action Taking	1.3	1.4
Evaluation	1.2	1.4

Composite scores for inquiry question one for each grade level and each domain are displayed in Table 7. The seventh-grade's overall composite score increased from 1.4 in the pre-survey to 1.5 in the post-survey. The eighth-grade's overall composite score increased from 1.2 in the pre-survey to 1.4 in the post-survey. There was an increase in scores in each domain across grade levels.

Table 7. Inquiry Question 1 Composite Scores Per Grade Level

7th Grade: Composite Score-Inquiry Question 1 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.4	1.5
Inquiry Question 1 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Decision Making	1.3	1.4
Action Taking	1.3	1.5
Evaluation	1.5	1.6
8th Grade Composite Score-Inquiry Question 1 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.2	1.4
Inquiry Question 1 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Decision Making	1.4	1.5
Action Taking	1.2	1.4
Evaluation	1.0	1.3

For the question labeled Decision Making (C), a (2) rating was assigned to the statement, "Decisions made by the team are clearly and directly related to the improvement of instructional practice and student learning." A (1) rating was assigned for "Decisions made by the team are occasionally related to the improvement of instructional practice and student learning." A (0) rating was assigned for the selection of "Teams decisions are not related to the improvement of instructional practice and student learning."

Table 8 shows the collective data of all 14 participants. The pre-survey and post-survey data is the same, having 50% (n=7) rating a (2) and 50% (n=7) rating a (1). There was no change

in the overall mean score for Decision Making (C). Though there was no change in the overall mean score, it should be noted that this area had the highest mean on the pre-survey to start, 1.5.

When looking at the grade levels individually (Table 9), seventh-grade had a -.2 change in their mean, and eighth-grade had a +.2 change in their mean rating. For the seventh-grade pre-survey, 29% (n=2) selected (2) and 71% (n=5) selected (1). The seventh-grade post-survey showed similar scores, with 14% (n=1) selecting (2) and 86% (n=6) rating a (1). The eighth-grade pre-survey showed 71% (n=5) rated (2) and 29% (n=2) rated (1). The eighth-grade post-survey results were 86% (n=6) rating (2) and 14% (n=1) selecting (1). When comparing the post-survey responses of the two grade-level teams, there was a difference. The seventh-grade had one of the seven (14%) team members rate Decision Making (C) a (2). However, the eighth-grade has the opposite ratings, with six of the seven (86%) team members assigning a score of (2). This data can be found in Table 9.

Decision Making (C) exposed one of the largest differences between grade-level responses. In the pre-survey, seventh-grade teachers indicated this item to be their lowest rating of the seven questions related to inquiry question one and rated it lower in the post-survey. In contrast, eighth-grade teachers identified Decision Making (C) as their highest on their pre-survey, and their rating increased and remained their highest response on the post-survey.

For the item labeled Decision Making (D), a (2) rating was assigned to the statement "The team regularly makes decisions about what specific instructional practices it will initiate, maintain, change and discontinue." A (1) rating was assigned for, "The team occasionally makes decisions about what specific instructional practices it will initiate, maintain, change and discontinue." A (0) rating was assigned for the selection of "The team does not make decisions about what instructional practices to initiate, maintain, change and/or discontinue." Table 8 shows the overall

ratings across grade levels. The pre-survey data shows 29% (n=4) rated a (2), 64% (n=9) rated (1), and .07% (n=1) rated a (0). The combined post-survey scores were 36% (n=5) selecting (2) and 64% (n=9) selecting (1). Table 10 indicates a +.1 change in the overall mean score for Decision Making (D).

Table 9 displays the data for the individual grade levels. For the seventh-grade pre-survey, 29% (n=2) selected (2) and 71% (n=5) selected (1). The seventh-grade post-survey showed similar scores with 57% (n=4) picking (2) and 43% (n=3) selecting (1). The eighth-grade pre-survey showed 29% (n=2) rated (2), 57% rated (1), and 14% (n=1) selected (0). The eighth-grade post-survey results were 14% (n=1) scoring (2), 86% (n=6) rating a (1), and 0% rating (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade teachers had four of the seven (57%) team members rated decision making (d) a (2). In contrast, eighth-grade participants had one of the seven (14%) team members assigning a score of (2). When looking at the grade levels individually, seventh-grade teachers had a +.3 change in their mean, and eighth-grade showed no change in their mean rating.

Table 8. Collaboration Score for Decision Making-Inquiry Question 1

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Decision Making (C)	(7) 50%	(7) 50%	(7) 50%	(7) 50%	(0) 0%	(0) 0%	1.5	1.5
Decision Making (D)	(4) 29%	(5) 36%	(9) 64%	(9) 64%	(1) .1%	(0) 0%	1.2	1.4

Table 9. Collaboration Score by Grade Level for Decision Making -Inquiry Question 1

7th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Decision Making (C)	(2) 29%	(1) 14%	(5) 71%	(6) 86%	(0) 0%	(0) 0%	1.3	1.1
Decision Making (D)	(2) 29%	(4) 57%	(5) 71%	(3) 43%	(0) 0%	(0) 0%	1.3	1.6
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Decision Making (C)	(5) 71%	(6) 86%	(2) 29%	(1) 14%	(0) 0%	(0) 0%	1.7	1.9
Decision Making (D)	(2) 29%	(1) 14%	(4) 56%	(6) 86%	(1)14%	(0) 0%	1.1	1.1

For the item labeled Action Taking (A), a (2) rating was assigned to the statement "Team members know the specific individual instructional actions that they should take as a result of group dialogue and decision-making." A (1) rating was assigned for "Most team members know the specific individual instructional actions that they should take as a result of group dialogue and decision-making." A (0) rating was assigned for the selection of "Team members are unaware of specific instructional actions that they should take as a result of group dialogue and decision-making." Table 10 shows the overall ratings across grade levels. The pre-survey data shows 43% (n=6) rated a (2), 50% (n=7) selected, and .07% (n=1) rated a (0). The combined post-survey scores

were 64% (n=9) selecting (2) and 36% (n=5) selecting (1). This was a +.2 change in the overall mean score for Action Taking (A).

For the seventh-grade pre-survey 43% (n=3) selected (2) and 57% (n=4) selected (1). The seventh-grade post-survey showed similar scores, with 57% (n=4) picking (2) and 43% (n=3) selecting (1). The eighth-grade pre-survey showed 43% (n=3) rating (2), and 43% (n=3) rating (1), and 14% (n=1) selecting (0). The eighth-grade post-survey results were 71% (n=5) scoring (2),29% (n=2) rating a (1), and 0% rating (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade had four of the seven (57%) team members rate decision making (d) a (2). Similarly, eighth-grade had five of the seven (71%) team members assign a score of (2) (Table 9). When looking at the grade levels individually (Table 11), seventh-grade had a +.2 change in their mean and eighth-grade had a +.4 change in their mean rating.

For the item labeled Action Taking (F), a (2) rating was assigned to the statement "The group has clear, continuous, and accessible documentation of the instructional practices that they have stopped, started and/or changed over time." A (1) rating was assigned for "The group has some documentation of the instructional practices they have stopped, started and/or changed over time." A (0) rating was assigned for the selection of "Little, if any, documentation exists of the practices that the group has stopped, started and /or changed over time." Table 10 shows the overall ratings across grade levels. The combined pre-survey data shows 29% (n=4) rating a (2), 50% (n=7) rating a 1, and 21% (n=3) rating a (0). The combined post-survey scores were 29% (n=4) selecting (2), 57% (n=8) selecting (1), and 14% (n=2) selecting (0). There was a +.1 change in the overall mean score for Action Taking (F).

In the seventh-grade pre-survey, 14% (n=1) selected (2) and 86% (n=6) selected (1). The seventh-grade post-survey showed similar scores with 29% (n=2) picking (2) and 71% (n=5)

selecting (1). The eighth-grade pre-survey showed 43% (n=3) rating (2), 14% (n=1) rating (1), and 43% (n=3) selecting (0). The eighth-grade post-survey results were 29% (n=2) scoring (2), and 43% (n=3) rating a (1), and 29% (n=2) rating (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade had 0% with a rating of (0) on the pre or post-survey. eighth-grade had 29% (n=2) team members assigning a score of (0) (Table 11). The combined ratings do not show the differences (Table 10). When looking at the grade levels individually in Table 11, seventh-grade had a +.2 change in their mean and eighth-grade had no change in their mean rating. Action Taking (F) remained one of the lowest means for both seventh and eighth-grade on both the pre-survey and the post-survey.

Table 10. Collaboration Score for Action Taking -Inquiry Question 1

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (A)	(6) 43%	(9) 64%	(7) 50%	(5) 36%	(1) .1%	(0) 0%	1.4	1.6
Action Taking (F)	(4) 29%	(4) 29%	(7) 50%	(8) 57%	(3) 21%	(2) 14%	1.1	1.2

Table 11. Collaboration Score by Grade Level for Action Taking-Inquiry Question 1

7th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (A)	(3) 43%	(4) 57%	(4) 57%	(3) 43%	(1) .07%	(0) 0%	1.4	1.6
Action Taking (F)	(1) 14%	(2) 29%	(6) 86%	(5) 71%	(0) 0%	(0) 0%	1.1	1.3
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (A)	(3) 43%	(5) 71%	(3) 43%	(2) 29%	(1) 14%	(0) 0%	1.3	1.7
Action Taking (F)	(3) 43%	(2) 29%	(1) 14%	(3) 43%	(3) 43%	(2) 29%	1.0	1.0

For the item labeled Evaluation (A), a (2) rating was assigned to the statement "Team members collect/have access to data about the quality of their instructional practices and their students' learning." A (1) rating was assigned for "Team members collect some/have some access to data about their instructional practices and their students' learning." A (0) rating was assigned for the selection of "The team does not have access to data about the quality of their instructional practices and/or student learning." Table 12 shows the overall ratings across grade levels. The combined pre-survey data shows 43% (n=6) rating a (2), 57% (n=8) rating a (1). The combined post-survey scores were 50% (n=7) selecting (2) and 50% (n=7) selected (1). Table 12 shows a +.1 change in the overall mean score for Evaluation (A).

In the seventh-grade pre-survey, 57% (n=4) selected (2) and 43% (n=3) selected (1). The seventh-grade post-survey showed no change in the scores, with 57% (n=4) selecting (2) and 43%

(n=3) selecting (1). The eighth-grade pre-survey showed 29% (n=2) rating (2) and 71% (n=5) rating (1). The eighth-grade post-survey results were 43% (n=3) scoring (2) and 57% (n=4) rating a (1). When looking at the grade levels individually in Table 13, seventh-grade had a +.2 change in their mean, and eighth-grade had a +.1 change in their mean rating.

For the item labeled Evaluation (B), a (2) rating was assigned to the statement "The team regularly analyzes the quality of their students' actual work (i.e. work completed by their students in response to their instruction)." A (1) rating was assigned for "The team infrequently examines the quality of their students' actual work (i.e. work completed by their students in response to their instruction)." A (0) rating was assigned for the selection of "The team does not examine the quality of their students' actual work (i.e. work completed by their students in response to their instruction)." The combined ratings across grade levels (Table 12) shows a substantial change. The combined pre-survey data shows 29% (n=4) rating a (2), 29% (n=4) selecting (1), and 43% (n=6) selecting (0). The combined post-survey scores were 64% (n=9) selecting (2), 36% (n=5) selecting (1), and 0% selecting (0). This is the most significant increase in responses of all items related to inquiry question one. There was a +.7 change in the overall mean score for Evaluation (B).

The seventh-grade pre-survey showed 43% (n=3) selecting (2), 29% (n=2) selecting (1), and 29% (n=2) selecting (0). The seventh-grade post-survey showed 71% (n=5) selecting (2) and 29% (n=2) selecting (1). This was an increase of 57% (n=4) of the participants. The eighth-grade pre-survey showed 14% (n=1) rated (2), 29% (n=2) rating (1), and 57% rating (0). The eighth-grade post-survey results were 57% (n=4) scoring (2), and 43% (n=3) rating a (1), and 0% rating a (0). The change was a change of 57% (n=4) participants' ratings. When comparing the responses of the two grade-level teams, it can be noted that seventh-grade and eighth-grade's post-survey

ratings were much more similar than their pre-survey scores. When looking at the grade levels individually (Table 13), seventh-grade had a +.6 change in their mean and eighth-grade had a +1.0 change in their mean rating. Evaluation (B) had the lowest pre-survey mean, .9, but the highest post-survey mean, 1.6. Both grade levels showed this area to have the highest increase in ratings from the pre-survey to the post-survey.

For the item labeled Evaluation (C), a (2) rating was assigned to the statement "The team regularly analyzes the quality of their classroom-based instructional practice." A (1) rating was assigned for "On occasion the team will analyze the quality of their classroom-based instructional practice." A (0) rating was assigned for the selection of "The team does not analyze the quality of their classroom-based instructional practice." Table 12 shows the combined rating. The combined pre-survey data shows 36% (n=5) rating a (2) and 64% (n=9) rating a (1). The combined post-survey scores were 29% (n=4) selecting (2), 64% (n=9) selecting (1), and .07% (n=1) selecting (0). This was a -0.2 change in the overall mean score for Evaluation (C). This was the only collective decrease in rating for items addressing inquiry question one.

The seventh-grade pre-survey showed that 57% (n=4) selected (2) and 43% (n=3) selected (1). The seventh-grade post-survey showed that 43% (n=3) selected (2) and 57% (n=4) selected (1). The eighth-grade pre-survey showed that 14% (n=1) rated (2) and 86% (n=6) rated (1). The eighth-grade post-survey results did not change and showed that 14% (n=1) scored (2), 71% (n=5) rated a (1), and 14% (n=1) selected a (0). When looking at the grade levels individually (Table 13), seventh-grade had a -0.2 change in their mean and eighth-grade had a -0.1 change in their mean rating. It should be noted that Evaluation (C) was the second highest pre-survey mean, 1.4.

Table 12. Collaboration Score for Evaluation -Inquiry Question 1

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (A)	(6) 43%	(7) 50%	(8) 57%	(7) 50%	(0) 0%	(0) 0%	1.4	1.5
Evaluation (B)	(4) 29%	(9) 64%	(4) 29%	(5) 36%	(6) 43%	(0) 0%	0.9	1.6
Evaluation (C)	(5) 57%	(4) 29%	(9) 64%	(9) 64%	(0) 0%	(1) 14%	1.4	1.2

Table 13. Collaboration Score by Grade Level for Evaluation -Inquiry Question 1

7th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (A)	(4) 57%	(4) 57%	(3) 43%	(3) 43%	(0) 0%	(0) 0%	1.4	1.6
Evaluation (B)	(3) 43%	(5) 71%	(2) 29%	(2) 29%	(2) 0%	(0) 0%	1.1	1.7
Evaluation (C)	(4) 57%	(3) 43%	(3) 43%	(5) 57%	(0) 0%	(0) 0%	1.6	1.4
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (A)	(2) 29%	(3) 43%	(5) 71%	(4) 57%	(0) 0%	(0) 0%	1.3	1.4
Evaluation (B)	(1) 14%	(4) 57%	(2) 29%	(3) 43%	(4) 57%	(0) 0%	0.6	1.6
Evaluation (C)	(1) 14%	(1) 14%	(6) 86%	(5) 71%	(0) 0%	(1) 14%	1.1	1.0

4.3.2 To what extent did the intervention impact collaboration during CPT?

Of the four areas of the cycle of collaborative inquiry – dialogue, decision making, action taking, and evaluation (DDAE) – the questions most closely aligned to inquiry question one came from three of the four areas: decision making, action taking, and evaluation (DAE). There was one open-ended response question: Describe the role of your personal relationships with members of your CPT team and how that influences your work. The open-ended responses were coded and analyzed, and themes that emerged are reported.

Table 14 displays the composite score of the survey questions related to inquiry question one: To what extent did the intervention improve the team's instructional focus? The composite score from the pre-survey was 1.3, and the posttest was 1.4. In addition, each domain's composite score remained the same or increased.

Table 14. Inquiry Question 2 Composite Scores

Composite Score-Inquiry Question 1 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.3	1.4
Inquiry Question 2 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Dialogue	1.4	1.4
Action Taking	1.2	1.5
Evaluation	1.0	1.2

Composite scores for inquiry question two for each grade level and each domain are displayed in table 15. seventh-grade's overall composite score increased from 1.4 in the pre-survey to 1.5 in the post-survey. eighth-grade's overall composite score increased from 1.1 in the

pre-survey to 1.2 in the post-survey. There was an increase in scores in each domain across grade levels.

Table 15. Inquiry Question 2 Composite Scores Per Grade Level

7th Grade: Composite Score-Inquiry Question 2 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.4	1.5
Inquiry Question 1 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Dialogue	1.5	1.5
Action Taking	1.3	1.7
Evaluation	1.3	1.4
8th Grade Composite Score-Inquiry Question 2 (DAE)	Composite Score Pre-Survey	Composite Score Post-Survey
	1.1	1.2
Inquiry Question 2 -Composite Score Per Domain	Composite Score Pre-Survey	Composite Score Post-Survey
Dialogue	1.1	1.2
Action Taking	1.0	1.3
Evaluation	0.7	1.0

For the item labeled Dialogue (D), a (2) rating was assigned to the statement: "Team dialogue consistently addresses essential questions of practice, instructional quality, and student learning." A (1) rating was assigned for "Team dialogue occasionally addresses essential questions of practice, instructional quality, and student learning." A (0) rating was assigned for the selection of "Team dialogue does not address essential questions of practice, instructional quality and student learning." If the scores are examined as one with 14 total participants, the pre-survey

shows that 43% (n=6) rated a (2), and 57% (n=8) rated a (1). The combined post-survey scores were 50% (n=7) selecting a (2) and 50% (n=7) selecting (1) (Table 16).

For the seventh-grade pre-survey, 57% (n=4) selected (2) and 43% (n=3) selected (1). The seventh-grade post-survey showed similar scores, with 57% (n=4) selecting (2) and 43% (n=3) rating a (1). The eighth-grade pre-survey showed 29% (n=2) rating (2) and 71% (n=5) rating (1). The eighth-grade post-survey results were 43% (n=3) rating (2) and 57% (n=4) selecting (1). When comparing the post-survey responses of the two grade-level teams, it can be noted that they were very similar. This breakdown of data can be found in Table 17, which displays the increase in the mean by +.1. seventh-grade indicated no change in rating, but the eighth-grade participants' mean increased by +.1.

For the item labeled Dialogue (E), a (2) rating was assigned to the statement "Inter-professional disagreements about issues of practice are typical: these disagreements are expected, openly examined and thoughtfully discussed." A (1) rating was assigned for "Inter-professional disagreements about important issues are not typical, often go unexamined-, or remain unaddressed." A (0) rating was assigned for the selection of "The group avoids conflict, tends to confirm practices, or inter-professional disagreements are said not to exist." Table 16 shows the overall ratings across grade levels. The pre-survey data shows 64% (n=9) rating a (2), 36% (n=5) rating (1), and 0% rating a (0). The combined post-survey scores were 29% (n=4) selecting (2), 64% (n=9) selecting (1), and .07% (n=1) rating a (0). This is the largest decrease in ratings in the survey. Table 16 shows Dialogue (E) as the highest rated pre-survey mean, 1.64. There was a -.42 change in the overall mean score on the post-survey, 1.22.

For the seventh-grade pre-survey, 57% (n=4) selected (2) and 43% (n=3) selected (1). The seventh-grade post-survey was 29% (n=2) picking (2) and 71% (n=5) selecting (1). The eighth-

grade pre-survey showed 71% (n=5) rating (2) and 29% (n=2) rating (1). The eighth-grade post-survey results were 29% (n=2) scoring (2), 47% (n=4) rating a (1), and 14% (n=1) rating (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade and eighth-grade showed a similar decrease in rating for this question (Table 17). When looking at the grade levels individually in Table 17, seventh-grade had a -.28 change in their mean and eighth-grade had a -.57 change in their mean rating. It should be noted that both grade levels had Dialogue (E) as their highest rated pre-survey mean, 1.57 and 1.71 respectively. This was the only area that collectively resulted in a lower mean on the post-survey.

For the item labeled Dialogue (F), a (2) rating was assigned to the statement "Team members participate equally in group dialogue; there are no hibernators or dominators." A (1) rating was assigned for "Most team meetings contribute to the dialogue, but there are some hibernators and dominators." A (0) rating was assigned for the selection of "Team members contribute unequally to the dialogue; there are regular dominators and hibernators." Table 16 shows the overall ratings across grade levels. The pre-survey data shows 21% (n=3) rating a (2), 64% (n=9) rating (1), and 14% (n=2) rating a (0). The combined post-survey scores were 50% (n=7) selecting (2), 36% (n=5) selecting (1), and 14% (n=2) rating a (0).

For the seventh-grade pre-survey, 43% (n=3) selected (2) and 57% (n=4) selected (1). The seventh-grade post-survey was 71% (n=5) picking (2) and 29% (n=2) selecting (1). The eighth-grade pre-survey showed 0% (n=0) rating (2), 71% (n=5) rating (1), and 29% (n=2) rating a (0). The eighth-grade post-survey results were 29% (n=2) scoring (2), 43% (n=3) rating a (1), and 29% (n=2) rating (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade had no participants select a (0) rating. In contrast, eighth-grade had two participants select a (0) rating (Table 17). For seventh-grade, Dialogue (F) became the one of

their highest means on the post-survey, 1.71. eighth-grade showed an increased mean to 1.3, +.3, but it remained one of their lowest area means.

Table 16. Collaboration Score for Dialogue-Inquiry Question 2

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Dialogue (D)	(6) 43%	(7) 50%	(8) 57%	(7) 50%	(0) 0%	(0) 0%	1.4	1.5
Dialogue (E)	(4) 29%	(9) 64%	(4) 29%	(5) 36%	(6) 43%	(0) 0%	1.6	1.2
Dialogue (F)	(5) 57%	(4) 29%	(9) 64%	(9) 64%	(0) 0%	(1) 14%	1.1	1.4

Table 17. Collaboration Score by Grade Level for Dialogue-Inquiry Question 2

7th Grade (N=7) PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Dialogue (D)	(4) 57%	(4) 57%	(3) 43%	(3) 543%	(0) 0%	(0) 0%	1.6	1.6
Dialogue (E)	(4) 57%	(2) 29%	(3) 43%	(5) 71%	(0) 0%	(1) 0.7%	1.6	1.3
Dialogue (F)	(3) 43%	(5) 71%	(4) 57%	(2) 29%	(0) 0%	(0) 0%	1.4	1.7
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Dialogue (D)	(2) 29%	(3) 43%	(5) 71%	(4) 57%	(0) 0%	(0) 0%	1.3	1.4

Table 17 continued

Dialogue (E)	(5) 71%	(2) 29%	(2) 29%	(4) 47%	(0) 0%	(1) 14%	1.7	1.1
Dialogue (F)	(0) 0%	(2) 29%	(5) 71%	(3) 43%	(2) 29%	(2) 29%	1.0	1.3

For the item labeled Action Taking (E), a (2) rating was assigned to the statement "Action-taking is equitable among members (i.e., every member acts to improve individual instructional practice and group performance as a result of team decision-making)." A (1) rating was assigned for "Action-taking is somewhat equitable (i.e., most members regularly take steps to improve individual instructional practice and group performance)." A (0) rating was assigned for the selection of "Action-taking is not equitable (i.e., some members take most of the actions, some take very little or none)." Table 18 shows the overall ratings across grade levels. The pre-survey data shows 29% (n=4) rated a (2), 57% (n=8) rated (1), and 14% (n=2) rated a (0). The combined post-survey scores were 57% (n=8) selecting (2), 36% (n=5) selecting (1), and .07% (n=1) rating a (0). Action Taking (E) had the highest increase in mean score, +.4 of all the items related to inquiry question 2.

For the seventh-grade pre-survey, 29% (n=2) selected (2) and 71% (n=5) selected (1). The seventh-grade post-survey was 71% (n=5) picking(2) and 29% (n=2) selecting (1). Three participants increased their ratings from (1) to (2). The eighth-grade pre-survey showed 29% (n=2) rating (2), 43% (n=3) rating (1), and 29% (n=2) rating a (0). The eighth-grade post-survey results were 43% (n=3) scored (2), 43% (n=3) rated a (1), and 14% (n=1) rated (0). When comparing the post-survey responses of the two grade-level teams, it can be noted that seventh-grade had no participants select a (0) rating. In contrast, eighth-grade had two participants select a (0) rating in

the pre-survey and one select a (0) in the post-survey (Table 19). There was a +.4 mean increase in 7th grade and a + .3 mean increase in 8th grade.

Table 18. Collaboration Score for Action Taking Inquiry Question 2

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (E)	(4) 29%	(8) 57%	(8) 57%	(5) 36%	(2) 14%	(1) 0.7%	1.2	1.5

Table 19. Collaboration Score by Grade Level for Action Taking Inquiry Question 2

7th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (E)	(2) 29%	(5) 71%	(5) 71%	(2) 29%	(0) 0%	(0) 0%	1.3	1.7
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Action Taking (E)	(2) 29%	(3) 43%	(3) 43%	(3) 43%	(2)29%	(1) 14%	1.0	1.3

For the item labeled Evaluation (E), a (2) rating was assigned to the statement "The team consistently generates targeted, specific, and timely feedback for team members about how to improve instructional practice and student learning." A (1) rating was assigned for "The team occasionally generates some ideas for how team members might improve quality of instructional practice and student learning." A (0) rating was assigned for the selection of "The team does not

generate targeted, specific, and timely feedback about quality of instructional practice and student learning." Table 20 shows the overall ratings across grade levels. The pre-survey data shows 21% (n=3) rated a (2), 57% (n=8) rated a (1), and 21% (n=3) rated a (0). The combined post-survey scores were 29% (n=4) selecting (2), 64% (n=9) selecting (1), and .07% (n=1) rating a (0). Evaluation (E) had the lowest pre-survey mean score of the questions related to inquiry question 2. There was a +.2 change in the overall mean score on the post-survey.

For the seventh-grade pre-survey, 29% (n=2) selected (2) and 71% (n=5) selected (1). In the seventh-grade post-survey, 43% (n=3) of participants selected (2) and 57% (n=4) selected (1). The eighth-grade pre-survey showed 14% (n=1) rating (2), 43% (n=3) rating (1), and 43% (n=2) rating a (0). In the eighth-grade post-survey results, 14% (n=1) scored (2), 71% (n=5) rated a (1), and 14% (n=1) rated a (0). When comparing the post-survey responses of the two grade level teams, it can be noted that seventh-grade had no participants select a (0) rating. In contrast, eighth-grade had three participants select a (0) rating in the pre-survey and one select a (0) in the post-survey (Table 21). When looking at the grade levels individually in Table 21, seventh-grade had a +.1 change in their mean, and eighth-grade had a +.3 change in their mean rating.

Table 20. Collaboration Score for Evaluation - Inquiry Question 2

7th & 8th Grade (N=14)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (E)	(3) 21%	(4) 29%	(8) 57%	(9) 64%	(3) 21%	(1) 0.7%	1.0	1.2

Table 21. Collaboration Score by Grade Level for Evaluation Inquiry Question 2

7th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (E)	(2) 29%	(3) 43%	(5) 71%	(4) 57%	(0) 0%	(0) 0%	1.3	1.4
8th Grade (N=7)PRE / POST	Score: 2		Score: 1		Score: 0		Mean	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Evaluation (E)	(1) 14%	(1) 14%	(3) 43%	(5) 71%	(3) 43%	(1) 14%	0.7	1.0

4.3.2.1 Open-Ended Responses- Inquiry Question 2

The open-ended question used to gather data on inquiry question 2 was "Describe the role of your personal relationships with members of your CPT team and how that influences your work." Analysis of the written responses to this pre-survey and post-survey question yielded three themes displayed in Table 22.

The first pre-survey theme was that personal relationships have varying levels of importance to participants. Respondents differed in their perspectives on the role that relationships play in their work. Responses indicated that personal relationships were critical for productivity, and others felt that personal relationships had no influence on productivity. GF stated, "The personal relationships between us is critical in moving in the right direction." ST shared, "I feel like if the team gets to know one another better it would be more productive." Though more respondents felt relationships did impact productivity, a few felt otherwise. AV shared, "I try to keep personal relationships somewhat separated from the professional roles. It is important to understand elements of people's personal lives and what drives them and to also have good

camaraderie, but those things do not have much influence on the work we accomplish." Similarly, TL felt, "Although I am closer with some members of the CPT team than others, I find that does not influence how I interact during the desired time."

In the post-survey, participants were asked to respond to the same statement: "Describe the role of your personal relationships with members of your CPT team and how that influences your work." The pre-survey theme of personal relationships having varying levels of importance was not expressed in the post-survey. Rather, the post-survey revealed only how personal relationships inform interactions and how the participants work together. Post-survey responses more directly answered the second portion of the question regarding how the relationships influence their work. AV remarked at how personal relationships impact their interactions. AV stated, "This type of relationship helps navigate how I can better approach specific professional discourse. Having some commonalities helps to lead into professional dialogue with less sense of judgment and more critical conversations can take place." Honesty was noted by others as a factor impacting their work. TL shared, "I have an understanding that some teachers are open to more constructive criticism than others and that I can be more honest with teachers I am closer with." JT explained, "Team time is a time for us to be honest and open with our successes and things we would like to improve on." MP's approach to how personal relationships impacted CPT was the only response that was slightly different: "I feel that I am more detached personally from the group. This is helpful as it allows me to remain more objective and take things less personally since I am not friends outside of school with most of my colleagues."

The second pre-survey theme was that personal relationships develop respect, comfort, and a feeling of being valued. In responses across grade levels the words respect, trust, comfort, and valued were repeatedly stated. These responses spoke to the need to be comfortable with team

members. To the respondents, personal relationships created this comfort. SR explained, "Interpersonal relationships based on trust and mutual respect has proven essential to helping team members feel comfortable sharing ideas, having difficult conversations, and sharing feedback in a non-threatening environment." TC shared, "I have the utmost respect for my team members and I trust them and know they have my and my students' best interests at heart." PH responded, "Having professional respect for everyone on the team and the unique qualities that they bring to the team makes each member of the team want to value the perspective that they bring to conversations."

The post-survey responses were similar. Responses focused on colleagues being vulnerable and personal relationships making CPT enjoyable. PH stated, "I think that personally knowing a team member's strengths makes for a more effective team and being vulnerable enough to ask for help when you need it makes it even more effective. SH responded, "Knowing each other so well makes for easier discussions. We are also able to make our team time enjoyable and conversational." SR felt that, "Relationships built on trust and mutual respect create an atmosphere where we are more willing to be flexible." JT explained, "Everyone on the team seems to feel comfortable on a personal level. This level of comfort is very important to my work. If there was a hostile or negative atmosphere, I would find it very difficult to talk and contribute during our meetings." GF also felt that, "Trusting personal relationships is vital to our team so that we can feel safe enough to be innovative, creative problem-solvers together. Without a trusting relationship, we will be guarded and stagnant."

The challenges personal relationships can bring to CPT was the third theme that emerged in the pre-survey and post-survey. TC noted that at one time, "Decisions were made or led by the loudest voices." AL explained that, "Sometimes these initiations (use of protocols) are welcomed and other times they are met with resistance." According to TL, "The bigger influence lies in the

fact that it is apparent that some team members are more engaged in the feedback and dialogue than others." Responses showed an additional challenge regarding how to disagree and find solutions without harming positive, productive relationships. JT noted, "When there is disagreement, it can be hard to know how to move forward because everyone is quite reluctant to make any other person feel slighted. Everyone on the team seems to be very interested in keeping the relationships in the team positive and productive."

The post-survey revealed the same theme: Personal relationships can produce challenges with CPT. The post-survey responses were similar to the pre-survey responses. Challenges and struggles with the impact of personal relationships on their work were shared. For example, TL shared, "Sometimes feedback that is given is not used or is not acknowledged." ST explained the challenge this way: "There are times that a strong personal relationship with a coworker allows for better productivity or open conversations without judgment. There are also times where philosophical differences or personal relationships and lack thereof have influenced me not to work with a team member." BM explained that disagreements within CPT do occur and that it can, at times, be difficult to overcome. When this happens, negativity can become a problem. AL notes that having structured conversations about instruction can be a challenge due to resistance of some participants.

Table 22. Themes: Describe the role of your personal relationships with members of your CPT team and how that influences your work?

	Pre-Survey	Post-Survey
Themes	● Personal relationships have varying levels of importance to participants. ● Personal relationships develop respect, comfort, and a feeling of being valued. ● Personal relationships can produce challenges with CPT	● Personal relationships inform interactions and how we work together. ● Personal relationships develop respect, comfort, and a feeling of being valued. ● Personal relationships can produce challenges with CPT

4.3.3 To what extent did the intervention improve the usefulness of CPT?

The third inquiry question was examined by collecting open-ended responses on the pre- and post-survey question: "Please explain how you have used CPT time and how it has influenced your instructional practice." Respondents differed in the level of detail provided. The responses were coded, and themes emerged from both surveys and shown in (Table 23). Post-survey responses made significantly more reference to the use of protocols during CPT and specifically mentioned the use of the Looking At Student Thinking protocol.

A theme that emerged in both the pre-survey and post-survey theme was that CPT is used for sharing ideas and getting feedback. In the pre-survey SR explained, "We brainstorm solutions to specific struggles with students, management and culture building strategies, alignment of curriculum, and helpful tools and strategies." CM spoke to idea sharing: "The most important part of CPT time is when we can bounce ideas off of one another." TC noted, ``We have read articles to gain insight on best practices and factors that influence instruction and assessment" and "We share tools in the gradebook/Google that others may benefit from using." Feedback was mentioned

by JT, who stated, “We will usually engage in "Critical Friends" dialogue in order to give/get feedback on what went well and what needs to be improved.” GF explained, “Small informal conversations have helped occasionally with general instructional practices, but not content related.”

Learning specific instructional approaches was mentioned more in the post-survey. SM stated, “Using this time also to analyze benchmark data and plan purposeful interventions has been valuable as well.” SH explained, “We talk about what we are doing in our classes and look for places where topics/skills relate. We ask for ideas/help from each other when we want to change/create new lessons.” BM responded, “Being able to meet with the team and discuss different instructional approaches that work for certain individuals has been amazing.” TC remarked, “In my opinion, CPT has improved my individual practice because we are able to share ideas that we are using in our classes and adopt new and effective strategies to try in our own classrooms.” ST commented, “I have used team time to learn from my coworkers and get help with assessments, student work, and instructional practices.”

A dominant theme in the pre-survey was the use of CPT to talk about student concerns and complete tasks. MP succinctly stated, “Team time is used predominantly to address student needs.” SH responded, “We take a lot of time to address student issues and concerns,” and AV shared, “It is used to discuss students.” PH elaborated, “It allows teachers to share student concerns/observations to make academic or social/emotional interventions.” Job-embedded tasks were noted throughout. JT shared, “We are effective with our team time and work together to complete various tasks on an individual and school level.” TC also noted, “We plan programmatic events in our grade level that affect all students.”

Responses in the post-survey followed the same theme that CPT is used to discuss student concerns and complete tasks. The post-survey response provided additional examples of how CPT is used. MP stated, “We use it to assess work, get feedback on lessons, meet with parents, align curriculum, coordinate and make schedules for team special lessons and projects and my favorite, positively reach out to parents and students!” SH explained, “We discuss student issues/concerns in a timely manner. We have used it to develop special schedules to accommodate speakers and special events. We have had parent meetings when there is an issue that concerns a student in all classes. We meet with the guidance counselor and GATE teacher to discuss student issues and enrichment.” JT mentioned communication tasks: “Fridays are dedicated to positive postcards for students and parent communication.” Additionally, CM shared, “We have used our planning time to celebrate our students through positive postcards, phone calls, locker “bombing” with treats.” AV explained, “We take a good amount of time to reach out to students and families in regards to the positive things students are doing.” JT shared, “CPT time is often used to problem-solve. Some of those problems are at the individual student level, some of those problems are logistical in nature, and some of those ‘problems’ are instructional.

A third theme emerged from the pre-survey but did not appear in the post-survey. Some challenges were noted from the pre-survey responses. BM explained, “At times this time can be negative and difficult due to personal emotions getting in the way of our main goals,” and “It is important to have goals for each session and do our best to stay focused/engaged to use the entire time wisely.” TL noted an additional personal struggle: “I struggle to connect to some of the teachings as I find it difficult to connect it to how that looks in my specific instructional practice.” AL added, “We are lacking a systematic way to track student need and progress.”

A different third theme emerged from the post-survey: CPT is impacted by protocol usage. Of the 14 respondents, 64% (n=9) mentioned protocols in the post-survey compared to .07% (n=1) mentioning protocols in the pre-survey. Responses specifically noted the LAST intervention. ST remarked, "The recent student thinking protocol has pushed me to look at student thinking in a new way and to always be looking for the THINKING that is going on, not just the end result." AL shared, "I appreciated the LAST protocol because it facilitated meaningful, cross-curricular conversations about the features of work that are necessary to make student thinking to be visible. It revealed that rigorous tasks should require critical thinking and place the cognitive demand on students. It allowed our team to begin thinking about how we could better support one another in creating rigorous tasks that promote student thinking. I look forward to talking more about writing practices across the curriculum." TL said, "Discussion of writing protocols is helpful to see how we as a team address an important learning outcome in similar and different ways to reach a common goal." In one response, protocols were mentioned to not have an impact on instruction as SH felt, "We ask for ideas/help from each other when we want to change/create new lessons. We use protocols but this has not influenced my instructional practice."

Table 23. Themes: Please explain how you have used CPT time and how it has influenced your instructional practice.

	Pre-Survey	Post-Survey
Themes	● CPT is a time to talk about student concerns and complete tasks. ● CPT is used for feedback, brainstorming, and sharing ideas. ● CPT has some challenges	● CPT discusses student concerns, completes tasks, and engages parents. ● CPT is used for getting feedback, brainstorming, and sharing ideas about instruction. ● CPT is impacted by protocol usage

5.0 Discussion

This chapter contains a discussion of the key findings related to three inquiry questions and an explanation of some implications for the use of common planning time.

5.1 Findings and Discussions Related to Inquiry Questions

The post-survey results yielded an overall positive impact of the implementation of the Looking At Student Thinking (LAST) protocol on the use of common planning time. The findings suggest an increase in overall collaboration during common planning time. When examining the collective and individual survey responses, similarities and differences emerged between the two grade levels. The interpretation of these similarities and differences as it relates to the inquiry questions allows for deeper analysis and implications for future work.

5.1.1 Discussion: To what extent did the intervention improve the team's instructional focus?

The post-survey findings support an increase in the collective rating of the seven TCAR (Teacher Collaboration Assessment Rubric) questions tied to the team's instructional focus. Findings from the decision making, actions taking and evaluation categories each demonstrate improvement.

Decision Making (C) specifically addressed if decisions are made on improvement of instructional practices within the team. The question of improvement requires a level of measurement to take place and can elicit a variety of responses. A focus on improvement and measurement can possibly cause people to think something they are doing is wrong. Making decisions on one's instructional practices can be personal and require a certain level of vulnerability to allow others to have an impact. As Hargreaves and Dave (1990) explained, when teachers seek feedback from peers and are vulnerable, a collaborative culture is created. Though findings support an overall improvement across grade levels, the LAST protocol may have had a greater impact on the eighth-grade team. Perhaps the eighth-grade is comfortable with the idea of using the LAST protocol to improve instructional practices. With such a large difference between the grade levels, there could be micropolitical factors influencing the approach and use of the LAST protocol. Blase and Blase (2002) argued that teachers develop an approach to protect and advance their own interests. The idea of improvement could be difficult to accept. Because seventh-grade's pre-survey rating started much lower and did not increase in the post-survey, this area could be further explored.

Decision Making (D) responses focused on initiating, changing, or maintaining instructional practices. Differences per grade level ratings indicated another way the LAST protocol improved instructional focus. This question elicited one of the seventh-grade team's highest growth areas but no significant change in eighth-grade's ratings. The LAST protocol sets the structure for collaboration to take place. Though collectively there was growth in this area, the differences between grade-level responses brings to mind what Woodland and Mazur (2015) cautioned. They found that collaboration could reduce or eliminate the discord needed for instructional improvement, and the work could reinforce practices without really assessing them.

When applying the LAST protocol, it is possible that the seventh-grade team felt comfortable with changing or maintaining instructional practices.

The findings support a positive impact of the LAST protocol in bringing an instructional focus to their CPT, but further discussion on how each team views decisions related to improvement of instructional practice could yield useful information. Specific examination of each team member's intent when participating in an instructional protocol like LAST would be beneficial. These results lead to a need to understand how each team views change. The data suggest that eighth-grade has a high focus on improvement and was possibly impacted by the LAST protocol. The results also suggest that seventh-grade may have been impacted by the protocol to focus on changes and maintaining practices.

Participants' responses to Action Taking (A) had increased similarly across grade levels and resulted in the second highest increase for both teams. The question was an assessment of team members knowing the specific individual instructional actions they should take as a result of group dialogue and decision-making. This intervention was geared towards individuals presenting work and listening to feedback from group dialogue to use in making instructional decisions. The post-survey increase indicates that the Looking At Student Thinking protocol likely had an impact on the team's instructional decision making.

Evaluation (B) asked if the team regularly, infrequently, or never examines quality in students' work. A clear increase in rating is shown across all grade levels and participants. The pre-survey data showed that six of the 14 participants rated a (0), but 0 of the 14 participants rated this question a (0) in the post-survey. Findings like this suggest the LAST intervention increased both teams' instructional focus during their common planning time.

Evaluation (C) asking how often the team analyzes the quality of their classroom-based instructional practices was the only area to show a slight decrease in rating. This decrease was seen from two participants decreasing their rating by one point. This question yielded one of the highest pre-survey ratings. These results require additional investigation to determine if participants are making a connection between looking at student work, Evaluation(B), and their own classroom-based instruction, Evaluation (C). Data was collected following six sessions. Additional intervention sessions over a longer period of time could possibly influence this rating and allow for participants to form a connection between looking at a student's actual work and their own classroom-based practices.

To summarize, the intervention required teachers to closely examine an actual piece of student work during their common planning time, making the team focus on teaching, learning, and student thinking. The first section of the pre-survey groups a series of questions specifically aligned to instruction. These questions provided a signal to participants of how common planning time can and /or should be used and may have influenced their future behaviors. Though it was not evaluative, and the responses did not allow for identification of the participants, it is hard to gauge how these types of questions personally impacted them. There were differences between grade levels responses, but collectively the post-survey data indicated an increase in collaboration ratings. Though this intervention was a short cycle of sessions, the data indicates that it made a positive impact on improving the team's instructional focus. Consistent implementation of this protocol would likely lead to a more consistent instructional focus during common planning time.

5.1.2 Discussion: To what extent did the intervention impact collaboration during CPT?

The survey data indicates an increase in the collective rating of the five questions related to the group's collaborative practices. On the five items, four showed pre-to-post increases, while one showed a decrease in rating. The responses to the open-ended question on the post-survey were more detailed and across both grade levels than the pre-survey.

A positive impact on the participants' collaboration was indicated by the growth in Action Taking (E). This topic addressed whether the action taking among team members was equitable, somewhat equitable, or not equitable. This was one of the highest growth areas in both seventh and eighth grade (Table 15). The LAST protocol creates the space for more team members to have a voice. The protocol's established time limits and focus areas create the space for more equitable collaboration and contributions to the team. Established team norms can include the use of protocols. Discussion-based protocols help to organize discussions by interrupting the normal flow of conversation, forcing participants to slow down and focus on the topic at hand. Through these protocols, an equal voice is welcomed. Discussion-based protocols create a safe place to ask tough questions (Little et al., 2003).

Dialogue (E) asks about inter-professional disagreements and showed a decrease in the rating from the pre-post survey. The survey question was designed to assess how inter-professional disagreements are either typical, addressed and examined openly, not typical and often unaddressed, or said not to exist or voided. Since the collaboration rating increased in every other question, perhaps the intervention did positively impact the team's collaboration. This difference raises questions about what, if any, impact the intervention had on inter-professional disagreement. Perhaps at the time of the pre-survey, participants were not able to recall any inter-professional disagreements. It is also reasonable to consider if the LAST protocol surfaced inter-professional

disagreements that were not present prior to the intervention. If prior to the intervention there was little collaboration on actual student work, as indicated on Evaluation (B) (Table 9), participants were not in a situation that would cause inter-professional disagreements. According to DeLima (2001), collaboration should involve conflict and suggest the need to find ways to promote conflict to bring about change. This intervention appears to be a way to promote conflict in a productive way. Though the rating decreased on the post survey, perhaps the intervention did have a positive impact. An additional evaluation of this question after a longer period of time of using the LAST protocol could yield another change in response.

The responses to the open-ended question provided insight into the impact the intervention had on the team's collaboration. When asked to describe the role of personal relationships with members of the team and how that influences their work, themes emerged of varying levels of importance, the need for respect and feeling of being valued, and challenges faced. Multiple responses provided an explanation of how well the team gets along and the feeling of safety and respect were common responses with varying levels of response to the second part of the question. Perhaps participants answered the question as if it was an assessment on themselves. It produced general responses that provided a surface level of collaboration. The post-survey gave some more direct responses to the second part of the question. The post-survey responses were more detailed in how their relationships influence their work.

The responses in the open-ended question and the findings from Dialogue (E) aligned to Nelson et al's. (2010) work. Perhaps the collaboration that is taking place is congenial and avoids conflict by touching on the surface level of collaborative dialogue to avoid the inter-professional disagreements. Nelson et al. (2010) explained, "Polite, congenial conversations remain superficially focused on sharing stories of practice, whereas collegial dialogue probes more deeply

into teaching and learning" (p. 175). The collegial conversations appear to be taking place, and the intervention appears to have positively influenced collaboration. However, is the collaboration and dialogue moving past sharing of ideas to be more inquiry based? Nelson et al.'s explanation appears to align with the data collected here:

> To avoid these emotional or affective conflicts, teachers often work hard to maintain congenial conversations characterized by generalities about instructional practices and assertions about student learning that are unsupported by empirical evidence. Shifting from these congenial but relatively superficial conversations to dialogue that is more productive for improving student learning entails risk-taking and trust (p 176).

The data collected following the intervention aligns with Nelson et al.(2010) findings. It may be that the strong personal relationships make common planning time more enjoyable and help develop comfort among team members. However, it should also be considered that those same personal relationships can make it harder to probe more and have deeper level conversations. The comfort could cause conflict avoidance and a maintenance of the status quo.

5.1.3 Discussion: To what extent did the intervention improve the usefulness of CPT?

The post-survey responses provided evidence for a positive impact on how common planning time is used. Participants responded to the statement: "Please explain how you have used CPT time and how it has influenced your instructional practice." Similar themes emerged in the post-survey and the pre-survey. First, CPT is used to discuss student concerns, completes tasks, and engages parents. Second, CPT is used for getting feedback, brainstorming, and sharing ideas about instruction. However, the post-survey responses were more detailed, and a third theme of

the impact of protocols on CPT emerged that was clearly tied to the Looking At Student Thinking protocol (Table 17).

The pre-survey responses to this open-ended question may be generalized because a question like this could seem like it is inviting self-assessment, which could feel evaluative in nature. The post-survey responses carried a more positive tone and were more detailed. The intervention required a shift in the most common use of the time, discussing student concerns and completing tasks. The structure and individual accountabilities of the LAST protocol showed team members an additional way to use CPT. The scheduled LAST sessions made this type of CPT usage a priority. When participants were asked in this second open-ended question to explain how they used CPT, nine of the 14 participants referenced protocols in the post survey, compared to only one of 14 in the pre-survey open-ended question. Additionally, eight of these nine participants referenced the protocol having a positive impact on their instructional practice and the use of CPT. It is reasonable to believe that the LAST intervention improved the use of the CPT.

5.2 Implication for Practice

Teacher collaboration and the effective use of common planning time can be impacted in multiple ways. There are a few findings from this study that could help educators improve collaboration and the effective use of common planning time. The assessment of current team collaborative and administrative support are critical.

Prior to the use of a protocol and an expectation of effective collaboration, the culture of the collaborative team should be assessed. Knowing how teams view themselves, their teammates, and the effectiveness of their common planning time will provide insight to possible next steps for

administration. Using an assessment rubric such as the TCAR could prove helpful. Once team norms are implemented, a protocol such as Looking At Student Thinking will provide the structure for those norms to be used. Without the protocol structure, opportunities to collaborate may not present themselves.

It is important that the administration and team members prioritize this type of instructionally focused intervention and intentionally schedule the time for its implementation. There are many responsibilities for teachers, and it is easy to prioritize other aspects of the job. Planned implementation of instructional protocols during CPT may make the expectations clear and signal a level of importance of the activity.

5.3 Conclusion

It is important to provide teachers the support to have structured conversations focused on instruction. Providing this structure, focuses the use of the CPT and provides the opportunity for the professional conflict needed for growth and instructional improvement. These findings support the idea that close examination should be given to the level of collaboration taking place. To collaborate at the highest level, teams move past the practice of reinforcing current practices and seek ways to improve instructional practice.

Common planning time is a valuable part of middle schools. The use of this time has multiple impacts. Collaboration between adult learners has its challenges but also the benefit of positively impacting teacher growth in instructional practice and, ultimately, student learning. Due to the micropolitics of adult learning, creating the space for equitable participation and focused dialogue is important. Consistent implementation of protocols such as the Looking At Student

Thinking protocol may provide the structure needed to positively impact the barriers to the effective use of common planning time.

Appendix A Common Planning Time Collaboration Survey

*Adapted from the Teacher Collaboration Assessment Rubric by Dr. Rebecca Woodland

Participant & Grade Level

Name Please enter a pseudonym as your name. Please DO NOT use your real name. You will need to use this same pseudonym in the post survey. This will allow a comparison of results without individually identifying the participants.

_____

Grade Level Select your grade level team.

- 7
- 8

Start of Block 1 Inquiry Question 1:

Decision Making (C)

1. Select the response that you feel aligns the most to your perspective.

- ○ Decisions made by the team are clearly and directly related to the improvement of instructional practice and student learning.
- ○ Decisions made by the team are occasionally related to the improvement of instructional practice and student learning.
- ○ Teams decisions are not related to the improvement of instructional practice and student learning.

Decision Making (D)

2. Select the response that you feel aligns the most to your perspective.

- ○ The team regularly makes decisions about what specific instructional practices it will initiate, maintain, change and discontinue.
- ○ The team occasionally makes decisions about what specific instructional practices it will initiate, maintain, change and discontinue.

- The team does not make decisions about what instructional practices to initiate, maintain, change and/or discontinue.

Action (A)

3. Select the response that you feel aligns the most to your perspective.

- Team members know the specific individual instructional actions that they should take as a result of group dialogue and decision-making.
- Most team members know the specific individual instructional actions that they should take as a result of group dialogue and decision-making.
- Team members are unaware of specific instructional actions that they should take as a result of group dialogue and decision-making.

Action (F)

4. Select the response that you feel aligns the most to your perspective.

- The group has clear, continuous, and accessible documentation of the instructional practices that they have stopped, started and/or changed over time.
- The group has some documentation of the instructional practices they have stopped, started and/or changed over time.
- Little, if any, documentation exists of the practices that the group has stopped, started and /or changed over time.

Evaluation (A)

5. Select the response that you feel aligns the most to your perspective.

- Team members collect/have access to data about the quality of their instructional practices and their student's' learning
- Team members collect some/have some access to data about their instructional practices and their students' learning.
- The team does not have access to data about quality of their instructional practices and/or student learning.

Evaluation (B)

6. Select the response that you feel aligns the most to your perspective.

- ○ The team regularly analyzes the quality of their students' actual work (i.e. work completed by their students in response to their instruction).
- ○ The team infrequently examines the quality of their students' actual work (i.e. work completed by their students in response to their instruction).
- ○ The team does not examine the quality of their students' actual work (i.e. work completed by their students in response to their instruction).

Evaluation (C)

7. Select the response that you feel aligns the most to your perspective.

- ○ The team regularly analyzes the quality of their classroom-based instructional practice.
- ○ On occasion the team will analyze the quality of their classroom-based instructional practice.
- ○ The team does not analyze the quality of their classroom-based instructional practice.

End of Block 1:

***Start of Block 2*:** Inquiry Question 2

Dialogue (D)

8. Select the response that you feel aligns the most to your perspective.

- ○ Team dialogue consistently address essential questions of practice, instructional quality, and student learning.
- ○ Team dialogue occasionally address essential questions of practice, instructional quality, and student learning.
- ○ Team dialogue does not address essential questions of practice, instructional quality and student learning.

Dialogue (E)

9. Select the response that you feel aligns the most to your perspective.

- ○ Inter-professional disagreements about issues of practice are typical-these disagreements are expected, openly examined and thoughtfully discussed.
- ○ Inter-professional disagreements about important issue are not typical, often go unexamined, or remain addressed.
- ○ The group avoids conflict, tends to confirm practices, or inter-professional disagreements are said not to exist.

Dialogue (F)

10. Select the response that you feel aligns the most to your perspective.

- ○ Team members participate equally in group dialogue; there are no hibernators or dominators
- ○ Most team meetings contribute to the dialogue, but there are some hibernators and dominators
- ○ Team members contribute unequally to the dialogue; there are regular dominators and hibernators.

Action (E)

11. Select the response that you feel aligns the most to your perspective.

- ○ Action-taking is equitable among members (i.e. every member acts to improve individual instructional practice and group performance as a result of team decision-making).
- ○ Action-taking is somewhat equitable (i.e. , most members regularly take steps to improve individual instructional practice and group performance).
- ○ Action-taking is not equitable (i.e., some members take most of the actions, some take very little or none).

Evaluation (E)

12. Select the response that you feel aligns the most to your perspective.

- The team consistently generates targeted, specific, and timely feedback for team members about how to improve instructional practice and student learning.
- The team occasionally generates some ideas for how team members might improve quality of instructional practice and student learning.
- The team does not generate targeted, specific, and timely feedback about quality of instructional practice and student learning.

Open Ended Question:

13. Describe the role of your personal relationships with members of your CPT team and how that influences your work.

_____
_____
_____
_____

End of Block:

Start of Block 3: Inquiry Question 3

14. Open Ended Question Please explain how you have used CPT time and how it has influenced your instructional practice?

_____
_____
_____

End of Block

Bibliography

Achinstein, B. (2002). Conflict amid community: The micropolitics of teacher collaboration. *Teachers College Record, 104,* 421-455. https://doi.org/10.1111/1467-9620.00168

Ahern, K. K., Ferris, G. R., Hochwarter, W. A., Douglas, C., & Ammeter, A. P. (2004). Leader political skill and team performance. *Journal of Management,* 30(3), 309- 327. https://doi.org/10.1016/j.jm.2003.01.004

Angelle, P. S., & Gaines, C. (2013). Structure and activities during common planning time: A portrait of two middle schools. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers (Eds.), *Handbook of research in middle level education: Common planning time* (pp. 213-230). Information Age.

Atlas-Learning from student work protocol. (n.d.) School Reform Initiative. https://www.schoolreforminitiative.org/download/atlas-learning-from-student-work-protocol/.

Carpenter J. M., Musser P. M.L., Samek L.L., & Caskey, M. M. (2013). Common planning time in Oregon middle schools: An endangered model. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers, (Eds.). *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp.329-355). Information Age.

Blase, J., & Blase, J. (2002). The micropolitics of instructional supervision: A call for research. *Educational Administration Quarterly, 38*(1), 6-44. https://doi.org/10.1177/0013161x02038001002

Blase, J. (1991). *The politics of life in schools: Power, conflict, and cooperation*. Sage.

Brosky, D. (2009). *Micropolitics in the school: Teacher leaders' use of political skill and influence tactics*. ProQuest Dissertations Publishing.

Burns, T. (1961). Micropolitics: Mechanisms of institutional change. *Administrative Science Quarterly, 6*(3), 257-281. https://doi.org/10.2307/2390703

Colton, A. B., & Langer, G. M. (2005). Looking at student work. *Educational Leadership, 62*(5), 22.

Cultures of thinking. Cultures of Thinking | Project Zero. (2022, January 31). Retrieved January 16, 2022, from https://pz.harvard.edu/projects/cultures-of-thinking

De Lima, J.Á. (2001). Forgetting about friendship: Using conflict in teacher communities as a catalyst for school change. *Journal of Educational Change 2*, 97-122.

Duffield, S. (2014). Common planning time: Benefits & barriers. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers, (Eds.). *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp. 27-48). Information Age.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6-11.

DuFour, R., DuFour, R. B., Eaker, R. E., & Karhanek, G. (2004). *Whatever it takes: How professional learning communities respond when kids don't learn.* www.solution-tree.com

Eichhorn, D. H. (1966). *The middle school*. Center for Applied Research in Education.

Faulkner S. A. & Cook, C. M. (2013). Components of school culture that enhance the effective use of common planning time in two high-performing middle schools. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers, (Eds.). *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp. 69-87). Information Age Publishing.

Flowers, N., Mertens, S., & Mulhall, P. (2000). How teaming influences classroom practices. *Middle School Journal, 32*(2), 52-59

Flowers, N., Mertens, S. B. (2013) Teachers' use and implementation of common planning time: A quantitative analysis of the National Middle Grades Research Project. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers (Eds.), *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp.307-328). Information Age.

Flowers, N., Mertens, S., & Mulhall, P. (1999). The impact of teaming: Five research-based outcomes. *Middle School Journal, 31*(2), 57-60. https://doi.org/10.1080/00940771.1999.11494619

Franz, D. P., Thompson, N. L., & Miller, N. (2014). Comparison of teachers' perceptions of perceived barriers regarding the implementation of common planning time at two middle schools. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers (Eds.), *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp. 49-67). Information Age.

Gajda, R., & Koliba, C. (2007). Evaluating the imperative of intraorganizational collaboration: A school improvement perspective. *American Journal of Evaluation, 28*(1), 26-44. https://doi.org/10.1177/1098214006296198

Graham, Parry (2007) Improving teacher effectiveness through structured collaboration: A case study of a professional learning community. *Research in Middle Level Education Online,31*(1), 1-17. https://doi.org/10.1080/19404476.2007.11462044

Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. *Teaching and Teacher Education, 6*(3), 227-241. https://doi.org/10.1016/0742-051x(90)90015-w

Hurd, E. (2013) Lessons learned: A case of one teacher's common planning time experience. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers (Eds.), *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp. 149-168). Information Age.

Knowles, M. S. (1980). *The modern practice of adult education*. Cambridge, The Adult Education Company.

Jackson, A., & Davis, G. A. (2000). *Turning points 2000: Educating adolescents in the 21st century*. Teachers College Press.

Jackson, G. E., Jr. (2016). *Interdisciplinary middle school teams as professional learning communities* (Order No. 10582873) [Doctoral dissertation]. Available from ProQuest Dissertations & Theses Global.

Kelchtermans, G. (2006). Teacher collaboration and collegiality as workplace conditions. A review. *Zeitschrift für Pädagogik, 52*(2), 220-237.

Ketterlin-Geller, L. R., Baumer, P., & Lichon, K. (n.d.). Administrators as advocates for teacher collaboration. *Intervention in School and Clinic, 51*(1), 51-57. https://doi.org/10.1177/1053451214542044

King, K. P. (2004). Both sides now: Examining transformative learning and professional development of educators. *Innovative Higher Education* 29, 155-174. https://doi.org/10.1023/b:ihie.0000048796.60390.5f

Little, J. W., Gearhart, M., Curry, M., & Kafka, J. (2003). Looking at student work for teacher learning, teacher community, and school reform. *Phi Delta Kappan, 85*(3), 184-192. https://doi.org/10.1177/003172170308500305

Looking at student thinking (last) protocol. Project Zero. (n.d.). Retrieved January 16, 2022, from https://pz.harvard.edu/resources/looking-at-student-thinking-last-protocol

Mee, M. (2013) A case study of effective common planning time and its positive outcomes. In S. B. Mertens, V. A. Anfara, M. M. Caskey, & N. Flowers (Eds.), *Common planning time in middle level schools: Research studies from the MLER SIG's National Project* (pp.131-148). Information Age Publishing

McEwin, C., & Greene, M. (2010). Results and recommendations from the 2009 National Surveys of Randomly Selected and Highly Successful Middle Level Schools. *Middle School Journal, 42.* https://doi.org/10.1080/00940771.2010.11461750

National Middle School Association. (2010). *This we believe: Keys to educating young adolescents.* Author. https://www.uww.edu/Documents/colleges/coeps/academics/This_We_Believe_Exec_Summary.pdf

Nelson, T.H., Deuel, A., Slavit, D., & Kennedy, A. (2010). Leading deep conversations in collaborative inquiry groups. *The Clearing House, 83*(5), 175-179. http://www.jstor.org/stable/20799873

Palmer, P. J. (1993). Good talk about good teaching: Improving teaching through conversation and community. *Change, 25*(6), 8-13. http://www.jstor.org/stable/40165012

Loeng, S. (2020). Self-directed learning: A core concept in adult education. *Education Research International*, 2020, 1-12, https://doi.org/10.1155/2020/3816132

Teaching Excellence in Adult Learning Center (n.d.). TEAL Center fact sheet No. 11: Adult learning theories. U.S. Department of Education. https://lincs.ed.gov/state-resources/federal-initiatives/teal/guide/adultlearning

Willner, R. (2011). Micro-politics: An underestimated field of qualitative research in political science. *German Policy Studies/Politikfeldanalyse, 7*(3), 155-185.

Woodland, R. (2016). Evaluating PK-12 professional learning communities: An improvement science perspective. *American Journal of Evaluation,* 37(4), 505-521. https://doi.org/10.1177/1098214016634203

Woodland, R., Lee, M., & Randall, J. (2013). A validation study of the Teacher Collaboration Assessment Survey. *Educational Research and Evaluation, 19*(5), 442-460. https://doi.org/10.1080/13803611.2013.795118

Woodland, R. H., & Mazur, R. (2015). Beyond hammers versus hugs: Leveraging educator evaluation and professional learning communities into job-embedded professional development. *NASSP Bulletin, 99*(1), 5-25. https://doi.org/10.1177/0192636515571934

Young, V. M. (2006). Teachers' use of data: Loose coupling, agenda setting, and team norms. *American Journal of Education, 112*(4), 521-548. https://doi.org/10.1086/505058